SAMSO-TR-76-181

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### GENERAL DYNAMICS

Convair Division

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AIRFRAMES
AIRBORNE
DIFFICULTIES REVIEW

GENERAL DYNAMICS SAMSO TR-76-181 Issue Date:	15 Aug <b>ust 19</b> 66
(III) GDC-BRW06-013-EK-2-101-	1
DIFFICULTIES BEVIEW ATLAS BOOSTER AIRBORNE AND GROUND SUPPORT SYSTEMS.	(6 Y C.5)
воок т.	(1) 9/p.)
GENERAL INFORMATION,	Lil
Airframes Airborne Difficulties Review.	
CONTRACT AH01(695)-718  (15) #  Per Itr. on file:	
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Approved by Chief of whichility Engineering	······································
B. B. Shaffer Chief of reliability Engineering	ng

### BOOK II - DIFFICULTIES REVIEW - AIRBORNE CONTAINS THE FOLLOWING VOLUMES

VOLUME I AIRFRAMES

\*VOLUME II ABORT SENSING AND IMPLEMENTATION SYSTEM

VOLUME III AUTOPILOT

\*VOLUME IV AUXILIARY POWER SOURCE

VOLUME V ELECTRICAL

\*VOLUME VI GUIDANCE

VOLUME VII HYDRAULICS

VOLUME VIII INSTRUMENTATION

VOLUME IX PNEUMATICS

VOLUME X PROPELLANT UTILIZATION

VOLUME XI PROPULSION INTERFACE

VOLUME XII PROPULSION

VOLUME XIII RANGE SAFETY COMMAND

\*VOLUMES II, IV AND VI UNDER ONE COVER.

### GENERAL INFORMATION

The Difficulties Review encompasses problems gathered from the factory, the field, (ETR and WTR) and UTP. The factory difficulties are limited to "selloff" and rerun composite testing.

In the UTP area, the difficulties were excerpted from Central Test Control Reports, Problem Reports, Supplementary History Sheets and Problem Review Reports.

Field problems for the Difficulties Review have been limited to captive flights. flight readiness firings, actual countdown dual propellant loading quad tanking, component reliability testing, and flight acceptance composite tests — Difficulties called out in the search for critical weakness program was not documented

GSE problems shall be limited to ETR Complex 12. 13. 36A and 36B for the present edition. Hereafter only booster difficulties shall be maintained

Failure analysis reports cover difficulties from the field and factory and may complement the information above.

The GSE Difficulties Review, Book 1 contains 14 Volumes, one volume for each system. under one cover. Each volume is appropriately indexed.

The Airborne Difficulties Review, Book 2 contains 13 volumes. Each volume is under separate cover except Volumes II, IV and VI. Volumes II, IV, and VI are under one cover because of the limited material contained in each volume. All volumes are appropriately indexed.

A guide to facilitate interpretation of data in the Difficulties Review (GSE and Airborne) is part of each book or volume.

### DIFFICULTIES REVIEW AIRFRAME - AIRBORNE

AIRFRAME	AIRBORNE -
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### PAGE(S)

		=====
I. (BOOSTER SECTION)	0001-0014	
II. SUSTAINER SECTION;	0044-0065	
III. BOOSTER/SUSTAINER SEPARATION,	0067-0072	
IV. SUSTAINER PAYLOAD SEPARATION;	0072-0077	
V. PAYLOAD FAIRING	0077-0083	

I. BOOSTER SECTION	
Bearing	0009
Bolt	0003, 0043
Boot	0003, 0008, 0010, 0011, 0016, 0017, 0019,
	0028-0034, 0037, 0041, 0042
Bracket	0010, 0018, 0026
Bulkhead	0043
Clamp	0032, 0033
Cone	0034
Disconnect-Riseoff	0012, 0015, 0017, 0030
Door	0022
Door-Pod	0005
Ducting	0037
Fitting or Flange	0007, 0009, 0034
Heat Shield	0020-0023, 0039, 0044
Insulation	0021
Jettison Rail-Support	0036
Latch	0003, 0005, 0007, 0021-0023
Longeron .	0010, 0018, 0026
Manifold	0003
Nacelle	0039, 0042
Nacelle-Door	0002, 0004, 0020-0023, 0030-0032,

### I. BOOSTER SECTION (Continued)

PACES

 Ring
 0043

 Rivets
 0004, 0005

 Seals (O-Ring, Gaskets, etc.)
 0007, 0009

 Shield
 0013, 0015, 0017, 0030

 Socket Assembly
 0007

 Spring
 0020

 Strut
 0038

 Tube
 0014

### II. SUSTAINER SECTION

Beam 0048, 0049 Bolt 0044, 0063

Boss 0047, 0063, 0064

Bulkhead 0053, 0057-0059, 0063

 Canister
 0055

 Clamp
 0059

Cone . 0063, 0064

Cover 0044, 0051, 0059, 0064

Disconnect-Staging 0053

Door-Pod 0047, 0055, 0060, 0063, 0064

Ducting 0062

Fitting or Flange 0052, 0055, 0063

Heat Shield 0044
Hinge 0047

Insulation 0053, 0057-0059

Latch 0054, 0055, 0060

Nacelle 0054

Plug 0051, 0052

Retro-Rocket 0046 - 0048, 0050, 0051, 0058, 0064

Seal (O-Ring, Gasket, etc.) 0050-0053, 0063

Strap 5055

Tank 0044, 0050, 0056, 0057, 0060, 0062, 0063, 006

### III. BOOSTER SUSTAINER SEPARATION

**PAGES** 

Bracket 0070

Disconnect-Staging 0068, 0069

Ducting 0068

Fitting or Flange 0066, 0069, 0070

Latch 0066, 0067, 0069, 0071, 0072

Piston 0071

Seal (O-Ring, Gaskets, etc.) 0069, 0070

Squib 0066

Valve . 0067

Valve-Conax 0072

### IV. SUSTAINER PAYLOAD SEPARATION

Boot 0075

Disconnect-Staging 0073

Harness/Wiring/Circuits 0074, 0075

Igniter 0074

Lanyard . 0073

Latch 0075

Pin 0073

Pyrotechnic 0072, 0073

Retro-Rockets 0073-0077

Squib 0073

### V. PAYLOAD FAIRING

Bolts - Explosive . 0082

Cone 5081

Ducting 0077

Nut - Explosive 0078, 0081, 0082

Pyrotechnic 0077

Retro-Rocket 0077

Squib 0081, 0082

Thruster 0081

V. PAYLOAD FAIRING (Continued)

PAGES

Valve

0078-0083

Vent

0078-0083

Convair Division

Subject:

Explanatory Information For Use of Difficulties Review (DR)

Data Tab Runs

This information has been prepared to facilitate use of the <u>DR</u>. It is not intended to describe how the DR was prepared nor the scope of the existing effort.

The Difficulties Review (DR) is presented on a form compatible with automated data processing and printout.

Appearing at the top of the page (outside of blocked-in areas) is the identification of the system and whether it is Airborne or Ground Support Equipment. Appearing with this identification is the date of the document and the page number.

On the right hand side outside of the blocked area, appears the abstract number. An abstract number is assigned to each item of the Difficulty Review to facilitate traceability to the original input document.

Appearing under the major identification are blocks wherein the information on component or system difficulty is identified and explained. Attached are samples of pages coded for reference to the following definitions and explanations:

### CODE EXPLANATION

1

This group of blocks callout system, subsystem, test/report number, failed component name, difficulty (Dif) data source, and GDC part number if applicable. Also called out here is the vehicle number, if applicable, and the date of difficulty.

In the same row, the site location, and in case of a flight, captive flight, or countdown, the time will be entered.

The block containing PRI and OTH refer to whether or not the failure is primary or a secondary failure. A secondary failure is to be interpreted as caused by another discrepancy.

The last block in this row is obvious and requires no further explanation:

- Refers to a major system of the launch vehicle.
- Refers to subsystem of a major vehicle system if applicable, (Booster, custair or, etc).

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CODE	<u>EXPLANATION</u>
4	Is a report number as opposed to type of report, (UTP, Countdown, Flight, FAR, etc.).
5	Is a type of report, such as a FAR, UTP, FRF, etc.
6	Refers to a component part by name.
5 6 7	Is a component piece part of the component and referred to by name, (plug, seal, wiring, diode, etc., only where applicable).
8 9	Is a GDC part number, if applicable.
9	Refers to a site or location at time of discrepancy on the component or vehicle system.
10	Is the vehicle or which discrepancy occurred. Vehicle number listed only if unit was installed on a vehicle at time of discrepancy.
11	Is the vendor part number, if applicable.
(11) (12) (13)	Is the vendor name, if applicable.
13	Is the failure caused by other component or other system. This item defines the failure as secondary or not secondary.
(14)	Refers to the primary failure. If item is labeled no, then item (13) may appear as a <u>yes</u> .
	Should item (13) appear as a <u>yes</u> , then an abstract will have been written to identify the cause of failure effecting the component referred to in the Difficulty Review, Item 6. It should be noted that a multiple failure may be recorded in these blocks, (yes/yes), or if a failure did not occur, (no/no).
<u>(15)</u>	Defines the failure mode, and if identifiable, the cause is called out.  A careful review of the failure mode is made to determine effect on system operation and vehicle effort.

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# Defines the system effect. This effect is the result of the failure mode assigned to the component. Defines the vehicle effect. This effect is a result of the failure mode and the result of the system effect. It should be noted that corrective action may be taken whether or not the failure was confirmed. Lists the corrective action. Taken by GDC, the vendor, or both.

CONVAIR BIVIESON

<u>(2</u> Q Ø ..... \*\*\*\*\* \*\*\*\* CONVAIR YES VICKERS VEHICLE BITE PRI YENDOR PART NO DATE BIF TIME BIF OTH VEHOOR PART NO PAILURE MOCCOUT DESERTICATION, BYM 408-0430, FRAT TRANSIENT PRESSURES WERE 4100 TO 4600 PSIG, ALLOMABLE IS 4000 PSIG, ALLOMABLE IS 4000 PSIG, MACCOMBLE IS 4000 PSIG, MACCOMBL F TO CASE COVER SEAL. FAILURE MODE\_LEARTETERNAL-CONTINUOUS OIL BEEFAGE WAS OBSERVED DURING CHECKOUT, CAUSED BY DEFECTIVE SEAL AT FUHIT PE CORRECTIVE ACTION-VENUOR REVIEWED STOCK OF OFRINGS AND INFORMS: THTIR PERSONNEL OF CORRECT SEAL INSTALLATION PROCED CORRECTIVE ACTION-CEPT 141-3 TO PERFORM RETERY ON TWO (8) ABBITTONAL UNITS FROM LOT 13, TO BETERMINE LOT ACCEPTAL NO VICKERS VER AR-GOSSA-R-RA TEB VICEEAB NO AA-60684-R-EA HO AA-BOSSA-R-EA FAILURE MOOE LEAR EXTERMAL. 374 203-0345 FAILED TO MEET CASE DRAIN LEAKASE REGUIRENENTS OF 0.9 6FM QURING PRT-1AT. This unit algo Failed to weet pear transient pressure reguirents. Reper to FPR-4261. PALE 0171 COMMICCITYE ACTION-NO COMPECTIVE ACTION ACCOMMENDED BINCE DANACE OCCURRED DUE TO INADVERFENT OVERPRESSURIZATION OF YES VICKERS FACTORY CONVAIN 0071-01 MTR 443244 841003 7138 CORRECTIVE ALTION-SAMMIT COP TEST TO REVISE TEST RESURFINENTS TO PRACTICAL LEVELS. DIFFICULTIES ACVIEN-HTDRAULIC SYSTEM-AIRBORN. DIF DATA AUURCE PART RUNDER 27-00564-1 R7-06366-1 27-02548-1 2-00598-1 134-410 -TEST/REPOST NUMBER FAILED COMPONENT NAME SCOSTER HURAULIC FUNFAREAL NYDRIGHT PONTARY MYCHAULIC PUMP 84. V-49-1U-26PF STOR OF STORES TITLE STATE 117 AND PROVICE COMPARISON DATE. 471CF 11 11 11 11 MIDHAULICIA.B ATDA AUX. 1C - A / B HTCHAULIC-A/B BOODICE H758412.15-6/8 NE PUNE. \$31.500s BOOSTEA  $\frac{4}{2}$ 9 (S) (v) (6) IX

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7000 3044	PRI VENDOR NAME 17 OTH VENDOR PART NO		E 0	S BOOSTER HFU COULD				7E3 000	IE OIL EVACUATION SES	AIR IN THE BOOSTER HTD		NY DATA.	20	MARP AND MYD. PUMP OUTLET PRESS. MEASUR MAP INDICAT MORNAL 19300 PSIA) PEAR AT 8.3 SEC. THE PRESS. THEN I BUT STWFTOMATIC OF UNUSUALLY MEANT DEMAND ON STSTE	74 -1.3 acc 70 1.3 ac			11.0 CH
2860	E VEHICLE BITE		PL 1510 368 650713	ER HYDRAULICS BECAUS			TO MAKE WIPER CONTAC	380 B-1 630701 -32.9	DIFFERENCE DURING TH			BY ANY OTHER TELEMETRY DATA.	1770 B-8 690603 B.3	D. PUMP OUTLE? PRESS 3 PSIA) PEAK AT 8.3 MATIC OF UMUSUALLY M	FOR A TIME PERIOD O			FL 7107 2-4
CONVAIR BIVISION DIP-ICULTIES REVIEW-HYDRAULIC \$7875M-AIRBORNE	BIF DATA SOURCE PART HUNSER	овиса.	COMPOSITE-PRO/OPL	AS RUH WIThout BOOSTS T FINAL CHECKS.			VS AND VE ADJUSTED 1	PLIGHT	MIBITED NO PRESSURE D	UME HODE INDICATES TH		CONTAMINATION WAS NOT CONFIRMED BY	PLIGHT	MEABUR, M33P AND MYD [A] TMAM HORMAL (330D E UNEMOMM BUT BYMPTOM	1. LOMER THAN NORMAL		i	197084-311804HO 14-1
COMPAI DIP:ICULTIES REVIEW-1	TEST/REFORT HUMBER PAILED COMPONENT MANE	"BUDSTER HTDRAULIC FILL AND BLEED PERFORMED.	F7868877F6-WG-G1-GAC6	TO OPERATE AT PRESCRIBEO TIME. TEST MAS RUM WITHOUT BOOSTER HTDRAULIES BECAUSE BOOSTER MFW COULD MOTELY. THIS WAS MOTED DURING AUTOPILOT FINAL CHECRS.	RATION DOES NOT START.		BOOSTER HPU HAND VALVE, MICROSHITCHES VS AND VE ABJUSTED TO MAKE MIPER 'OWTACT.	60C/BKF85-048/01-401-00-38	BI HTORAULIC ACCUMULATOR PRESSURE EXHIBITED NO PRESSURE DIFFERENCE DURING THE OIL EVACUATION	BTSTEM EFFECT-POSSIBLE COMTAMINATION. ALTHOUGH THE FAILUME MODE INDICATES THE POSSIBILITY OF MUALIC STSTEM, STSTEM PERFORMANCE MAS BATISFACTORY.		THE POSSIBILITY OF	60C/8KF63-G38/8E-4G1-60-17F	OF FOLERANCE. BOOSTER HTD ACCUM. PRESS MEASUR. M33P AND HTD. PUHP OUTLET PRESS. HEASUR M3P INDICAT TAL PRESS. RISE BUT TO A LOWER "313D PSIA) THAN MORHAL (330D PSIA) PEAK AT 8.3 SEC. THE PRESS. THEN SIA DURING NEXT 1.3 SEC. SPECIFIC GAUSE UNKNOWN BUT STHFTOMATIC OF UNUSUALLY MEAYT DENAMD ON 21STE	* ATBIEM EFFECT-OPERATION TOO LOW. BOOSTER HYDRAULIE PRESB. LOMER THAN MORNAL FOR A TIME PERIOD OF		<b>.</b>	69/C22M61-015-DA1047-/L4-7MO-01-71 COMPOSITE-PRD/DPL
15 166 1946	#31816 808-87872		MTGRAULIC-A/G BOOSTER	FAILURE MODE-'AIL TO MOT BE OPERATED REMOT	ATSTER EFFECT-OFCRAT	VEHICLE EFFECT-NONE.	CORRECTIVE ACTION-BOX	M70RAULIC-A/8 80031ER	FAILURE MODE LEAK. BI	BT3TEM EFFECT-PO331BI MUALIC ST3TEM, STSTEM	VEHICLE EFFECT-MOME.	CORRECTIVE ACTION-NOME.	PTDRAM, IC-A/B Bootice	FAILURE MODE-OUT OF 1 ED AM INITIAL MORMAL P GEGATED TO BPED PRIA M.	PASIEM CFFECT-OFERATI	- VEHICLE EFFECT-HONE.	CORRECTIVE ACTION-NOME.	110844 IC-4/B 8008 ICR
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15 JUN 1866

# DIFFICULTIES REVIEW-AIRFRAME SYSTEM-AIRBORNE

		MAME STRIEM"AINDUNIN				
57.57EM 31.0-3737EM	TEST/REPORT HUNGER FAILED COMPONENT NAME	DIF DATA BOUNCE PANT NUMBER	VEHICLE DATE DIF	317E 71ME DIF	VEHICLE SITE PRI VENDOR NAME DATE DIF TIME DIF OTH VENDOR PART NO	<u> </u>
IRFRAMC-A/B	\$0463-0874/81-401-00-84	FLIGHT	840 830911		YES NO	•
FAILURE MODE-STRUCTURAL.	FAILURE HODE-STRUCTURAL, SMALL FALLING OBJECT OBSERVED ON PLIGHT FILMG AT ABOUT 4 BECONDS. OBJECT NOT IDENTIFIED.	LIGHT FILMS AT ABOUT	4 860040	8. OBJEC	NOT IDENTIFIED.	
SYSTEM EFFECT-NOME.						
VEHICLE EFFECT-MONE.						
CORRECTIVE ACTION-NOME.					,	
I PTRANC-A/B	60/A63-0476/C1-303-00-68	riet	60 E	876C 7	YES HO	99973
FAILURE MODE-STRUCTURAL.	FAILURE HODE-STRUCTURAL, SHALL FALLING CBJECT CBBERVED ON FILM AT 7 BECONDS, CBJECT NOT IDENTIFIED.	ILN AT 7 SECONDS, OF	JECT NOT	IDENTIFI	Ġ	
SYSTEM EFFECT-NOME.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-NOME.						1
IRFRANC-A/B	EM-1860 Atlas Venicle	Riest	52F 6303£3	576E 81	YES HO	****
FAILURE MODE-STRUCTURAL-	FAILURE MODE-STRUCTURAL-SELF-DESTROYED AT 91 SECONDS CAUSE UNKNOWN.	ъвгислен.				
SYSTEM EFFECT-EXPLOSION.						
VEHICLE EFFECT-LOSS OF M	VEHICLE EFFECT-LOSS OF VEHICLE INTEGRITY AND SELF-DESTRUCTION.	ż				<del></del>
CORRECTIVE ACTION-NONE-CAT AMALYSIS.	CORRECTIVE ACTION-NOME-CAUSE OF PAILURE NOT IDENTIFIED. THIS WAS A SAC LAUNCH AND 60/C DID NOT PERFORM A POOT FLISM 7 Analysis.	B WAS A SAC LAUNCH A	ND 60/C D	ID NOT PE	APORM A POST PLIS	
IRTRAME - A / B	A0.163-0031/A1-402-00-188	PLIGHT	1980	A-3 46.9	<b>22</b>	******
PAILURE MODE-OUT OF EXPER H TRACES AT 48.8 SECONDS.	FAILURE MODE-OUT OF EXPECTED TEST VALUE, PRONOUNCED SHOCK WAS EVIDENCED ON THE BOLL RATE SYRO AND AXIAL ACCELERATIO H TRACES AT 48.8 SECONDS, THE APPROXIMATE TIME OF MACH 1.	AS EVIDENCED ON THE	BOLL RATE	SYBO AND	AXIAL ACCELERATION	
SYSTEM EFFECT-NONE.						
VEHICLE EFFECT-NOME.						
CORRECTIVE ACTION-NOME.						1

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DIFFICULTIES NEVIEW-AIRFRAME SYSTEM-AIRSORNE

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19 JUN 1966

STATEM SG-STATEM	TEST/REPORT NUMBER FAILED COMPOMENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	VEHICLE SITE PRI DATE DIF TIME DIF OTH	PRI VENDOR NAME OTH VENDOR PART NO	NAME NO	
AIRTRANG-A/B	WSE-48/A3-402-00-174	rim.	176	43.47.1	22		
FAILUME MODE-OUT OF EXP M TRACES AT 47.1 SECONDS	OF EXPECTED TEST VALUE. PRONOUNCED SHOCK IN SECONDS, THE APPROXIMATE TIME OF MACH 1.	PRONOUNCED SHOCK WAS EVIDENCED ON THE ROLL RATE 67RO AND AXIAL ACCELERATION THE OF MACH 1.	ROLL RATE	GVRO AN	AXIAL ACCEL	ERATIO	
SYSTEM EFFECT-MONE.							
VEHICLE EFFECT-NOME.							
CORRECTIVE ACTION-NOME.							
AIRFRANC-A/B	AE42-0421/P6-403-00-F1	riei.	104D 620306	36.48	100 A		***
FAILURE MODE-STRUCTURAL	AUCTURAL. ATLAS SELF DESTRUCTION OCCURRED AS A RESULT OF UPPER STACE SELF DESTRUCTION.	A RESULT OF UPPER	174GE BELF	DESTRUCT	10.		
SYSTEM EFFECT-LOSS OF STRUCTURAL INTEGRITY.	STRUCTURAL INTEGRITY.						
WENTCLE EFFECT-LOSS OF	VEHICLE INTEGRITY. VEHICLE SELF DESTRUCTES FOLLOWING THE RUPTURE OF THE LOW TANK.	MUCTED FOLLOWING THE	E RUPTURE	OF THE LC	DK TANK.		
CORRECTIVE ACTION-NOME	to atlas.						
AIRFRAME-A/B BOOSTER SECTION	GOC/BRF65-034 FORMARD MACELLE DOORB	COUNTDOM 69-78211-1 69-78211-2	7107 690428	7	<b>8 8</b>		
FAILURE MODE-OUT OF TOL	FAILURE MODE-OUT OF TOLENAME. THE BUND 1 AND 111 AND THE BUND 11 AND 1V FORMARD MACELLE DOORS MAD BEEN INSTALLED 1 1 THE MICHE GUADRANTS	IWD II AND IV FORMA	ID MACELLE	M STOOM	ID DEEN INGTA	וופ ז	
STSTEM EFFECT-NOME, DOORS INSTALLED SUITAL RINGS ARE PAINTED ON DURING MANUFACTURING.	STSTEM EFFECT-NOME, DOORS INSTALLED SUITABLE FOR PLIGHT, DOORS ARE INTERCHAMEABLE AND ARE IDENTIFIED ONLY AFTER MAR INCS ARE PAINTED ON DURING MANUFACTURING.	XII BAL INTERCHAMBAI	NE AND AR	E 10CN711	1ED ONLY APT	¥ \$	
VARCLE EFFECT-NOME.							•
CORRECTIVE ACTION-NACEL	CORRECTIVE ACTION-MACELLE DOOMS WILL BE GUADMANT IDENTIFIED AFTER FIT CHECK.	APTER PIT CHECK.					
AIRFRANC-A/B BOOSTER SECTION	606/84763-070/401-00-63	PLIME	7114	#-4 #00	22		

FAILURE MODE-OUT OF EXPECTED TEST VALUE. EMSINE COMPASTMENT TEMPERATURES INDICATED MARMER THAN AVERAGE THERMAL ENVI ROMMENT AFTER BASE PRESSURE REVERSAL, MAXIMUM TEMP OF 844 DES F MAS RECORDED AT 104 SECONDS IN THE GUAD & AREA BY PI ST.

WENICLE EFFECT-NOME, ALL MISSION CONCETTIVES MENE SATISFIED.

SYSTEM EFFECT-MICH TEMPERATURE ENVIRONMENT.

10 SUN 11966	5 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -				
	DIFFICULTIES REVIEW-AIRFRAME SYSTEM-AIRBORNE	TAME BYSTEM-AIRBORN			
SYSTEM SUS-SYSTEM	TEST/REPORT NUMBER PAILED COMPONENT NAME	DIF DATA SOURCE PART HUMBER	VEHICLE SITE	VEHICLE SITE PRI VENDOR MAME	
CORRECTIVE ACTION-NONE.	CORRECTIVE ACTION-NONE, MARMER THAN AVERAGE TEMPERATURES HOT CONSIDERED A PROBLEM.	T CONSIDERED A PROB	LEM.		
AIRFRAME-A/B BOOSTER SECTION	CT-98-02-038 FUEL MANIFOLD SUPPORT	7.22.20 - 005	1740 36% 651206	7E8 60/C NO	797044
FAILURE MODE-STRUCTURAL.	RUCTURAL. FIELD REPORTED 3/4 CRACK IN BUPPORT ASSEMBLY DURING ROUTING INSPECTION OF THRUST SECTION.	T ASSEMBLY DURING R	DUTINE INSPECTION	OF THRUST SECTION.	
CORRECTIVE ACTION-FAILUR SUNEY MAS CREINATED BY CLUDE A LICKNAUT ON POD EN OR CHANGE HERT TREAT OF R	CORRECTIVE ACTION-FAILURE COMFIRMED, FAILURE MAS DUE TO STRESS CORROSION OF TOTS TO ALUMINUM ALLOY ROD END FITTIME, SURVEY MAS CREINATED BY GO/C TO INSPECT FOR CRACKS IN MANIFOLD SUPPORT STRUTS, GO/C RECOMMENDED DESIGN CHANKE TO IN CLUDE A LOCKNUT ON ROD END BEARING TO PREVENT FORCING THE ROD FITTIME OR PITTIME OR PITTIME SO IT IS LESS SUSCEPTIBLE TO STRESS CORROSION.	ESS CORROSION OF TO OLD SUPPORT STRUTS. D END BEARING SHANK E TO STRESS CORROSI	75 TG ALUMINUM AL GD/C RECOMMENDED INTO THE THREADS DN.	LOY ROD END FITTING. DESIGN CHANGE TO IN IN THE ROD FITTING	
AIRFRAME-A/B BOOSTER SECTION	AC-60-0048/32-513-A7-02 SUSTAINER THRUST CHANGER BOOT	CAPTI VE E7-77011-1	26 32 691115	YES 60/C	980994
FAILURE HODE-STRUCTURAL.	FAILURE HOGE-STRUCTURAL. POST TEST INSPECTION REVEALED A TORN CAM LOC FLAP IN BUAD I AND II.	IN CAM LOC PLAP IN	BUAD I AND 11.		
SYSTEM EFFECT-NOME. NO E	SYSTEM EFFECT-NOME. HO EVIDENCE OF NOT ENGINE COMPARTMENT. THE MAXIMUM TEMPERATURE RECORDED WAS SO DEGREES F.	THE MAXIMUM TEMPERA	TURE RECORDED MAS	BO DEGREES F.	
WHICLE EFFECT-NONE					
CORRECTIVE ACTION-IR 556	ON-IR 556604 WAS WRITTEN AGAINST THE BUSTAINER BOOT.	DR BOOT.		,	
AIRFRANE-A/B ROOSTER SECTION	69-0071-13 STAGING LATCH BOLTS.	COMPOST TE - FRB / DPL. 7-45435	7113 E-4 05110E	7 7 5 5	000370
FAILURE MODE-OUT OF TOLE	FAILURE HODE-OUT OF TOLERANCE, & BOLTS HERE UNDERTORAUED.				

CORRECTIVE ACTION-THE SIX BOLTS WERE RE-TOROUED. WEHICLE EFFECT-NOME, STRIEM EFFECT-HOME.

FAILURE HODE-OUT OF TOLERANCE, HIGH ENGINE COMPARINENT THERMAL ENVIRONNENT HAS INDICATED BY ATAST AT THE SUSTAINER INSTRUMENTATION PANEL, THE TEMPERATURE STAITED TO RIBE AT 75 SECONDS AND REACHED THE UPPER BAND LIMIT OF TOO DEGREES F AT 118 SECONDS.

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147#

GOC/BK45/AZ-601-00-147

ATRENE-AZE BOOSTER SECTION

SYSTEM EFFECT-HIGH TEMPERATURE ENVIRONMENT, BASEO ON HEAT PLUX COMPUTATIONS FROM PREVIOUS PLIGH'S, IT WAS DETERNINE O THAT THE HEAT FLUX IMPUT DURING THIS PLIGHT WAS NOT DETRINENTAL TO ENVINE COMPONENTS OR ELECTR'CAL COMMECTIONS.

FAILUFE MODE-STRUCTURAL- RIVET MEADS CAME OFF MACELLE (FOUR AT MISSILE WIPE DOMN, PIFTY NINE DURING 100 PCT SURVEY TAFIEST) DUE 10 STRESS CORROSION INTER- GRANLAR CRACKING. AMALYSIS REVEALED EXCESSINE DEFORMATION AND BENDING OF ME ADS. CONTRIBUTES.

CORRECTIVE ACTION-1. ON NEW FABRICATION ECP 1444 REPLACED ALL 1036 RIVETS ATTACHING FIBERALASS IN INE ENSINE NACELL

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GENERAL DYNAMICS CONVAIR DIVISION

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	DIFFICULTIES REVI	DIFFICULTIES REVIEW-AIRFRANE BYSTEM-AIRBORNE	¥				
STSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPOMENT NAME	DIF DATA SCURCE PART NUMBER	VEHICLE DATE DIF T	817E	1 × 0	VEHICLE SITE PRI VENDOR MANE	2
VEHICLE EFFECT-NO	Ove.						150000
CORRECTIVE ACTION-NOME.	- HOME .						
AIRFRAME-A/B BOOSTER SECTION	GDC/BKF69-038/L4-701-00-7108 NACELLE DOCA	FL1647	7106 E-	<b>7-8</b>	YES		•
FAILURE MOCE-FAIL WERE HOT COMPLETEL BJECT, 3) DOUR CLO CUTHARD,	FAILURE MOCE-FAILED TO GPERATE AT PRESCRIBED TIME. FILM COVERAGE OF LIFT-OFF INDICATED QUAD 1-1V DOORS BOUNCED AND WERE NOT COMPLETELY CLOSED. THIS CONDITION WAS PROBABLY CAUSED BY 1) LATCH FAILURE, 2) INTERFERENCE FROM A FOREICH O BACCT, 3) DOOR CLOSURE SPRINGS BROKE OR CAME LOOSE DURING CLOSING, 4) LOMER FLAME THAT DOOR BEARS AGAINST MAS BENT OUTWARD.	ILM COVERAGE OF LIFT-OFF LY CAUSED BY 1) LATCH FA NING CLOSING, 4) LONER FI	INDICATED QUA	ND 1-1V ERFERENC OR BEARS	DOORS F FRO	BOUNCED AN H A FOREIGN NST MAS BEN	. 0 _
SYSTEM EFFECT-MON MT MALFUNCTIONS.	SYSTEM EFFECT-MOME. THE DATA DID NOT INDICATE ANY EVIDENCE OF ANY MIGH THRUST SECTION TEMP OR ANY COMPONENT IN FLIG IT MALFUNCTIONS.	IDENCE OF ANY HIGH THRUS	7 SECTION TEM	OR ANY	Š	OMENT IN FL	•
VEHICLE EFFECT-NONE	¥						
CORRECTIVE ACTION URING MAINTENANCE, M. PAST,	CORECTIVE ACTION-1) CLOSER INSPECTION OF ALL FACETS OF THE DOOR INSTALLATION 2) TO PREVENT BENDING OF THE FLANCE D APING HAINTENANCE, A MORK PLATFORM WILL BE CONSTRUCTED WHICH DOES NOT COME IN CONTACT WITH THE FLANCE AS 17 DID IN 1 II. PAST.	OF THE DOOR INSTALLATION	CONTACT METH	47 BENDI THE FLA	¥6 Q¥	THE FLANGE 3 17 DID IN	٥-
AIRFRANE-A/B	GOC/BKF63-038/L4-701-00-7108	75121	7106 Z-	7.5	7 Y S		***
FAILURE MOE-OUT	FAILURE HODE-OUT OF EXPECTED TEST VALUE, MHEN BASE REVERSAL OCCURRED FIVE TEMPERATURE MEASURENENTS INCREASED IN THE ENGINE, BY 101 SECONDS, MAXIMUM TEMPERATURE NAS 274 F LOCATED IN THE SUSTAINER ENGINE FUEL PUMP AREA.	EVERSAL OCCURRED FIVE TEI F LOCATED IN THE SUSTAIN	PERATURE MEAS IR ENGINE PUEL	SURENENT	S INC	REASED IN 1	<u>.</u>
SYSIEM EFFECT-MIG MICH EXMIDITED THE MAS 274 P. THEREPO	BYSIGN EFFECT-HIGH TEMPERATURE ENVIRONMENT, CALCULATIONS FROM CALGAIMETER DATA OF HEAT TRANSFER FOR VEHICLE 7105; W Hich envidited the greatest heat input (greater tham 500 p) vielded a total heat flux of 35.9 btu max. Temp on Yids Mas 274 p. Therefore tike meat transfer was less tham 35.8 btu union is insufficient to cause any structural damage.	IONS FROM CALCRIDETER DA' 100 P) YIELDED A TOTAL H 18-8 BTU WHICH IS INSUFFI	TA OF HEAT TRA	HASTER F 1.9 DTU 12. AHY 18	TAK.	HICLE 7105, TEMP CH 710 URAL DAMAGE	3
VEHICLE EFFECT-NOME.	ž						
CORRECTIVE ACTION	- HOKE.						
AIRFRANC-A/B BOOSTER SECTION	8LV-98-02-037F MACELLE RIVETB	FAR 7-7621E	9301 6	613	12.0	TES 60/FORT MORTH	Τ.

	900n	DIFFICULTIES REVIEW-AIRFRAME BYSTEM-AIRBORNE	RFRAHE BYSTEH-AIRBOPY	w			
	HBLDAG-BYS	TEST/REFORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE	VCHICLE SITE PRI	STE PRI	VENDOR NAME VENDOR PART NO	r
	E AND THRUST DARKEL WITH TS WILL BE REPLACED MITH	WITH LOCK BOLTS, E. FABRICATED BODSTER WILL BE SO FC! RIVET TAP TESTED AT THE SITES. FAILED RIVE WITH BOLTS BY ECP. S. PAR SLY-88-02-3529 OF 4/9/65 DOCUMENTS CORRECTIVE ACTION RECOMENDATIONS.	HILL BE 50 PCT RIVET 29 OF 4/9/65 DCCUMENT	TAP TESTED A B CORRECTIVE	T THE 811	ES. FAILED RIVE COMMENCATIONS.	******
	AIRFRAME-A/B BOJSTER SECTION	St.V-30-02-059F LATCH-B1 PCD DOOR	FAR 69-72126-1	7104 WIR 450317	37 5	CANLOCK SIL46-1AA	118000
	FAILURE MODE-STRUCTURAL- E AND WAS LOST, CAUSE OF UNMIELDY, DIFFICULT TO LA O SITE DELIVERY, SEE FAR	FAILURE MODE-STRUCTURAL-LATCH BROKE HALF LOOSE FROM 119 BRACKET WHILE ZLOSING POD DOCR. ONE PIVOT RIVET PULLED LOOS E AND MAS LOST. CAUSE OF FAILURE 13 ATTRIBUTED TO MARGINAL DESIGN. PROBLEM 19 AGGREVATED BY-DOORS BEING CUMDERSOME, UNMIELDY, DIFFICULT TO LATCH WITHOUT APPLYING EXCESSIVE FORCE TO LATCHES, LOCKED AND UNLOCKED MUMEROUS TIMES PRION T O SITE DELIVERY. SEE FAR SLY-80-UR-038F FOR SIMILAR PROBLEM.	RACKET WHILE SLOSING DESIGN, PROBLEH IS A RCE TO LATCHES, LOCKE M.	POD DOCR. ONE	PIVOT RI DOORS BEI D WUNERCU	VET PULLED LOOS NG CUMDERSOME, S TIMES PRICK T	
	CORRECTIVE ACTION-CONTINHED. (4.) CIC 330R2 6 PRIOR TO LOUKWIRING FOR MISSILES 84-1690-1 FREVENT LATOR FRACTURES INEN OTHER MEAGES WIL	COKECTIVE ACTION-CONTINHED. (4.) CIC 350R2 REVISED 69-72103 RIGGING INSTRUCTIONS TO ASSURE OF REDUCED LATCH LOADIN PRIOR TO LOCKWIRING FOR MISSILES 89-1670-1 AND ON. (2.) AVO OF 7/13/85 STATES THAT IF RIGGING INSTRUCTIONS FAIL TO PREVENT LATCH FRACTIMES THEN OTHER MEASTS WILL RE USED. (3.) THIS ACTION SAME AS FOR FAR SLY-9D-02-0368.	103 RIGGING INSTRUCTE AVO OF 7/13/85 STATES .) THIS ACTION SAME A	CNS TO ASSURE THAT IF REGE S FOR FAR SLY	CF REDUC 1HG 1MSTR -9D-02-03	ED LATCH LOADIN UCTIONS FAIL TO SF.	
	ATREAME-A/B BCOSTER SECTION	GDC/BRF65-015/L3-T02-00-7104	F.191	710¢ 2-3 650312 69	r S		888848
	FAILURE MODE-OUT OF EXPE AFTER THE NOMINAL TIME O NO MENT OFF THE INSTRUMEN	FAILURE HOE-OUT OF EXPECTED (EST VALUE, A RISE IN ALL THRUST SECTION AMBIENT TEMPERATURE INSTRUMENTATION MAS NOTED AFTER THE MONINAL TIME OF DASE PRESSURE REVERSAL, A7AST, SUSTAINER FUEL PUMP IMLET, STARTED RISING AT 69 SECOMDS, A EN MENT OFF THE INSTRUMENTATION UPPER BAND EDGE OF 550 F AT 91 SECOMDS.	RUST SECTION AMBIENT SUSTAINER FUEL PUMP I T 91 SECONDS.	KENPERATURE 3( MET, STARTED	RISING A	ATTON WAS NOTED T 69 SECONDS. A	
	SYSTEM EFFECT-HIGH TEMPE T GFEAT ENGUGH TO CAUSE A	SYSTEM REFECT-HIGH TEMPERATURE ENVIRONMENT-THE TOTAL HEAT FLUX INTO THE THRUST SECTION (128TUZ FOOY SQUARED) WAS MO T GEEAT EYGUGH TO CAUSE ANY THRUST SECTION COMPONENT DAMAGE.	FLUX INTO THE THRUST E.	SECTION (128	ruz Foor	SQUARTD) MAS NO	
	VEHICLE SFFECT-NOME.	VEHICLE TEFECT-MONE. CORRECTIVE ACTION-GOVE HAS PROPOSED (1) TOP 8449 TO INVESTIGATE RADIATION BOOT STRENGTH OF MATERIALS. AND	TIGATE RADIATION BOOT	STRENGTH OF	HA TER I ALS	, AND (2) ADDIT	,
	TOWAL PRE-LAUMCH FYOTOGRA	PROTOGRAPHIC COVERAGE OF BOOT INSTALLATIONS TO ASSIST IN POST-PLIENT AMALYSIS.	NS TO ABSIST IN POST-	TLICHT AMALYS	18.		·
	AIRFRANG-A/9 BOOSTER SECTION	SLV-SD-02-038F BI POD DOOR LATCH RIVET	FAR 60-72126-1	7104 VTR 650302	res S	CAMLUCK 31L48-1AA	01200
•	FAILURE MOSE-STRUCTURAL-LATCH BROKE LOOSE LOST AT TIME OF FAILURE, IT WAS SURMISSED WET TO GALL, POSSIBLT BEING MOTCHED BY THE		FROM 373 BRACKET WHILE CLOSING POD DOOR. PIVOT RIVETS PULLED OUT AND MERE THAT PIVOT RIVET FAILED FROM REPEATED ACTUATION CAUSING THE LOM CARBON RI MATING HOLE IN THE BRACKET. DESIGN TOLERANCE SLOP CONTRIBUTED TO FAILURE.	OR. PIVOT RII ACTUATION CA XERANCE SLOP	ETS PULL USING THI CONTRIBU	TO OUT AND NERE E LOW CARBON RI TED TO FAILURE.	·····
	CORRECTIVE ACTION-CCHFIFMED-1, CIC 3802E RIOR TO LOCKWIRING FOR HISSLES 60-1800-1 FAILS TO PREYENT LATCH FRACTURES THEN OTHE	MEVISED AND ON. R MEANS	89-72105 RIGGING INSTRUCTIONS 8. AVO OF 7/13/65 STATES THAT WILL SE USED. LATCH REPAIRED.	TO ASSURE OF	REDUCED F RIGGIN	TO ASSUME OF REDUCED LATCH LOADING P. IF REVISION OF RIGGING INSTRUCTIONS	

15 JUN 1956

DITFICULTIES REVIEW-AIRFRAME SYSTEM-AIRBORNE

ATRIANE-AND ROOSTER SECTION FALLUK POLC-OUT OF TO ARTED TO RISE, FIVE THER						_
FALLUKE MIGE-CHT OF TO ARTED TO RISE, FIVE THE	60/2: AP265-001/	FLIGHT	106F 45010#	3766	VE3	52030
	FAILUNE MIGE-CHIT OF TOLERANCE COMMINCING AT APPOXIMATELY BASE PRESSURE REVERSAL ENGINE COMPARTIENT TEMPERATIMES PI ARTED TO RISE, FIVE INGRADCOURLES INCICATED TEMPERATURES IN EXCESS OF 1000 DEGARGES FARAIMETT.	FAISE PRESSURE REVER! IN EXCESS OF 1000 DEGI	BAL ENGINE KEES FAHAIH	CCMPARTE	ENT TERFFRATIMES P	
SYSTEM EFFECT-ENSINE OF	SYSTEM EFFECT-ENTINE COMPARIMENT CONFINENTS WERE BUDJECTED TO A MIRM TENPERATURE ENVIRONMENT.	ED TO A MICH TENPERATI	HE ENVIRON	MENT.		
VEHICLE EFFECT-NOME.						
COPPECTIVE ACTION-BOOT:	COPECTIVE NOTICE-BOOTS WEEL INPROVED FIRE TIREST SECTION SEALTHG MAS IMPROVED.	SEALTHG WAS IMPROVED				
: <u>8</u>		nier	111F 041252	[./v]R 78	Y63 NO	6232633 
FAILURE PROE-OUT OF EXC R TEMPLEATLAES AROVE 10" 2, AND 3 AREAS, THE THE D 2-3	OF EXPECTED HEST VALVE. HIGH ENGINE COMFARINENT TEMESTATURES WEST RECORDED IN THE BUNG I AKEA, PEA OVE 1094 DEGREES F OCCURPED AT 78 SEL, A SECOND TEMPRAKTURE RISC BEHALL AT 79 SECONDS IN THE BUND 1, THE THIRD RISE STARTED AT 92 SECONDS MAINLY IN BUAD 1-4 THE LAST RISE STARTED AT 116 SECONDS IN QUA	AKINCNI TEMFERATURES SECOLO TEMPERATUCE R NLT EN RURO 1-4 THE LU	WERE RECOR	DED IN T 1 TO SEC ARTED AT	HE RUAD & AREA. PE DADS IN THE BUAD ! 116 SECONDS IN QU	
SYSTEM EFFECT-HIGH TEM	CH TEMPERATURE ENVIRONMENT.					
VEHICLE LFFECT-NONE.						
CORRECTIVE ACTION-NO CORRECTIVE ACTION RNOWN. E ASSOCIATED WITH REYERSAL OF THE DIFFERENTIAL ATER DUCT SOCIATION WAS NOT YERIFIED. THE EFFECT OF		NO CAUDES HAVE BEEN 18CLATED-HOMEVER, THE HIGH TEMPERATURES SEEN TO B PRESSUME ACROSS THE HEAT SHIELD, CLOSUME OF THE EWSINE COMPANTMENT HE THIS DOOR DEING CPEN IS NOT WICHN.	EVER, THE, CLOSURE OF	H164 7EH	PERATURES SEEM TO SINE COMPARTMENT IN	
AIRFANE-A/3 BODSTER SECTION	GDA-APZ64-D62/D1-601-D0-36	म्यक	34F 640051	10 07	YES 60 FT V 17H HO	•
FAILURE MODE-OUT OF EXPECTED TEST V KCESS OF SOD DEGREES AT 100 MECONDS.	OF EXPECTED TEST VALUE. TEMPERATURE MEASUREMENTS IN THE THRUST SECTION INDICATED TEMPERATURES IN ISS AT 100 SECONDS.	LIREDENTS IN THE THRU	ST 8EC11ON	INDICATE	D TEMPERATUREE IN	
STSTEM EFFECT-HIGH TEM	CH TEMPERATURE ENVIRONMENT.					·
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-NOME.						
A' REAME-A/B	COA/BRF64-048/L4-701-00-7103	P.1947	7103	7.2	4E8	1

15 JUN 1984

SYSTER SIG-SYSTER	TEST/REPORT HUMBER FAILED COMPONENT NAME	DIF DATA BOUNCE	VCHICLE DATE DIF	311E F	PRI VENDOR NAME OTH VENDOR PART NO	<b></b>
	HE SHE TO THE PERSONNEL THE PERSONNEL THE SET OF PERSONNEL TO SET OF	T VO ANY DO SUPPLIED OF CO.	10 CAB	4 4 3 3 3 5 4	IN SHE SO A TOURS	*****
GW TENDERATUSE, THE	THE PESULTING BTU WAS 35.5 WHICH IS BELOM THAT REQUIRED TO F. 1L ANY ELECTRICAL MIRING OR STRUCTURAL	ON THAT REQUIRED TO F. 1	L ANY ELECT	RICAL WIR	NE OR STRUCTURAL	
VEHICLE EFFECT-NOME.						
CURRECTLIVE ACTIONS DED TO MUSO ON BOOS	CLERECTIVE ACTION-1) ROTATE ATT CLAMP ON SUS. DICT SO INAT RETAINING BOLT WILL NOT FRAY GOOFL E) INSTRUMENTATION AD DES TO SESS ON BOOSTER TURBINE EXHAUST BOOF, ST. INVEKTIGATE BOOT MATERIAL AN' STITCHING.	that retaining bolt will not fray eate boot haterial an' stitching.	t. WOT FRAY	E051. E) 1	NOTRUMENTATION AD	
ATRIPEAULAZE BOGSTER SECTION	SLV-9D-02-DigP LP2 VENT DUCT GABRET	FAR R7-76406-7	7102	KIELY.	TES KIHRHILLBURBER	0.394.78
FAILURE MODE-EXTER	FAILURE MODE-EXTERNAL LFAR- LAZ LEAKED FROM A GASKET THÁT WAS CUT BY THE PIBERGLASS SMIELD AT ASSEMBLY DUR TO DERIG 8 DEFICIENCY:	HAT WAS CUT BY THE PIRE	RGLA33 SHIS	O AY ABBE	HOLY DUE TO DERIG	
E ACT	cm har bly-90-02-3525 recomends a debign chance of the vent bybiem.	ON CHANGE OF THE YENT &	YSTEM.	The control of the co		
ATRIFRAME-A/B BOOSTER ALCTION	LV-99-05-277F SEPARATION LATCH PITTING	7.A	2890 640319	FACTORY	7ES BWC NO 7-45455-5	1961761
FAILUME MOC-COMTANT P REQUIRED VALUMES ME D DURING ITS HISTORY	FAILUNE MOC-CONTANTHATION, ALDIBLE LEAK AT VENT MOLE WITH 1DC 1931, END CAP TIGNTENTIN TORBUE LAS CONSIDERABLY BELO I REGULRID VALUES. PETALLIC CONTANTHATION NAS EVIDENT, MARKS AND SCRATCHES INDICATED THAT THE LATCH HAG BEEN ACTUATE DURING ITS HISTORY.	MITH 100 PSI. END CAP T MARKS AND SCRAICHES IND	ICATED THAT	CROUC MAS	CC/31DERABLY BELC I MAG BEEN ACTUATÉ	
CCRFECTIVE ACTION-1 O PSI NITROGEN LEAR E THESE LATCHES ARE POUNDS, REF, RAR LV	CCERECTIVE ACTON-FAILURE NOT CONFINNED. PER INTER-COMPANY LETTER DATED 840708, AT CHECAOUT AND FINAL ASSEMBLY A 10 O PSI NITROGEN LEAK GHECK IS MADE. LATCHES ARE NOT ACTUATED HERE, FURTHER INVESTIGATION DID NOT REVEAL ANY AHEA WHER E THESE LATCHES AKE ACTUATED. CIC 43791 DATED 840808 REDUCED THE REGUIRED END CAP TORGUE TO SO PLUS OR MINUS & FOOT POUNDS, REF, RAR LV-99-06-3701.	PANY LETTER DATED 84070 LYED HERE, FURTHER INYE DUCED THE REGULARD END	S. AT CHECK STIGATION D	OUT AND FI	MAL ASSEMBLY A 10 EAL ANY AREA WHER . OR HIMUS & FOOT	
AIRFRANC-A/B	SLY-80-02-532F MISSILE SUPPORT SOCKET ASSEMBLY.	PAR LY. 27-04500-1	350 640403	3YC	YES INST.DEVEL.LAB NO . SIESS	
FAILURE MOE-STRUCTHAL- SOCKET SLE RTIALLY REMOVED AND DENT, THIS WAS C OR ORIGINALLY REPORTED IN 1962), VEN ON TO HARMOMAS DURING CARTIVE TEAS.	FAILURE MODE-STRUCTURAL- SOCKET SLEEVE WAS CRACKED WITH PARTS HISSING, SLEEVE ALIGNWENT DETENT MECHANISH PIN WAS PA HISALY REMOVED AND DENT. THIS WAS CRIGINAL SOCKET ASSEMBLY ON SSD MISSILE MAD EXPERIENCED NUMER/US MOT PIRINGS (CRA A CRIGINE FRONTED IN 1962). VEHICLE THEN USED FOR BLY MOCKUP, AT RECYCLE, SOCKET WAS REPLACED, PAILURE ATTRIBUT DI TO HARMOMAS DUBING CAPTIVE TESTS.	PARTS HISSING, SLEEVE WLY CH 36D HISSILE HAD KLY MOCKUP, AT RECYCLE,	ALIGNHENT EXPERIENCE BOCKET MAS	DETENT HEY D NUMER/301	ALIGNMENT DETENT MECHANISM PIN WAS PA EXPERIENCED NUMER/NUS HOT FIRINGS (CRA SOCNET WAS REPLACED, FAILURE ATTRIBUT	

CORECTIVE ACTION-HOME- VEHOOR IS NO LONGER SUPPLYING UNITS.

GENERAL DYNAMICS CONVA. N. DIVIBION

8901 NOT ST	DIFFICULTIES REVIEW-AIRFRAME BYATEM-AIRDORME	RFRANC SYSTEM-AIRDORP	¥				
57.5TEH 81.8-37.5TEH	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SCURCE	VEHICLE DATE DIF	SITE TINE DIF	PR C	VENDOR HANE	
AIRFRANG-AVB BOOSTER SECTION	GDA-AP284-028/P1-801-00-137	FLIGHT	137F	11 795EC	δ <del>2</del> 2		681680
FAILURE MOSE-OUT OF E	EXPECTED 1831 VALVE, ABHORMAL TEMPERATUME ENVIRCAMENT IN QUAD II AND IV OF	ITURE ENVIRONMENT IN	11 AN	1 V OF E	2 7 7	ENGINE COMPARINEMT.	
9YSTE I EFFECT-HIGH TE 105 A-40 111 SEC. THEN CHIN30 DEG F AT PS	SYSTE! EFFECT-HIGH TEMPERATURE ENVIRONMENT. IN 90AD II A TEMP RISE BEGARM AT TO AND RENAINED AT 1000 DEG. F. BETWEEN 105 AND 111 SEC. THEN DECAYED RAFINLY TO 120 DEG F DY 120 SECO. IN WUAD IV A TEMF DECREASE DEGIMNING AT 30 DEC. REA CHIN, -30 DEG F AT 7% SEC. THEN IMPREASING TO 145 DEG F BY 89 SEC., THEN DECREASING TO -70 DEG F BY BECO.	TEHR MISE BEGAR AT TO SECS. IN WAND IN A	D AND RENA TEME DESKE BING 10 -7	INED AT 1 ANE DECIN O DEG F B	DUO DE	CG. F. BETWEEN NT 30 ACC. REA D.	
WENICLE EFFECT-HONG. CORRECTLY ACTION HON RE VARIATION'S JRE NOT	WEMICLE EFFECT-HOME. CORRECTIVE ACTION HOME, TEMPERATURE MEASUREMENTS INDICATING TEMP. VAPIATIONS MERE OF P16M HESMONSE TYPE AND THEREFO IE VARIATIONS ARE NOT CONSIDERED A PRODLEM. NO FURTHER ACTION TAKEN.	ING TEMP. VAPIATIONS TION TAKEN.	KERE OF P.	CH HESPON	15E TV	PE AND THEREFO	
AIRFRANE-A/B	LV-98-02-043F SUSTAINER RADIATION BOOT ASSEMBLY	FAR LY 27-77402	25.050 640325	ETR	<b>2</b> 0	30% 60¢	# 1 # 8 0 P
FAILURE MODE-STRUCTU THE HOW IS REQUIRED N OF THE FULL LOOP OW B. MINIMAL PESITYAMCE	FAILURE MODE-STRUCTURAL, PRE-INSTALLATION INSPECTION REVCALED THAT THE TWO SPRING HOOKS WERS NOT ATTACHED TOWETHER. THE HOOK IS REQUIRED FOR ATTACHED TOWERECT FADRICATION OF THE EMGINE, FAILURE DUE TO INCORRECT FADRICATION OF THE FILL LOOP OVER CENTER AND THE HALF LOOP OVER CENTER IN THE SAME FILL LOOP OVER CENTER THO BY THE FILL ROOP OF SMITPING.	CALED THAT THE TWO SP MERENCE OF THE ENGIN ITER IN THE SAME PLANE I THE SPRING DURING HA	RING HOOK.	WERS NOT	MCORR TO E	CHED TOSETHER. ECT FADRICATIO ACK OTHER. THU	
CORECTIVE ACTION-COMFIRMED (1) YCAR ING ENJS AT 30 DECKEES TO EACH OTHER. WAR GAP OF G.OB INCH 18 REQUIRED IN THE AVO OF SEPT 15, 1964 DOCCMENTS SAME.	CORECTIVE ACTION-CONFIRMED (1) YOAR 6560-64, IN REPLY TO RAR LY-88-U2-3626, STATED THAT VEHOUR WOULD FADRICATE SPR ING ENDS AT 90 DELKEES TO EACH OTHER. (2) CIC-07468-662-3-E ADDED DETAIL L TO REVISION M OF 21-77003 SHOWING THAT A MAK CAP OF G.OS INCH IS REQUIRED IN THE MALF LOOP OVER CENTER SPRING TENHINATION AFTER CONJECTION OF THE SPRING EMDS . AVO OF SEPT IS, 1964 DOCUMENTS SAME.	O RAR LY-98-UZ-3626. -L foder detail l to inter spring terhitati	STATED THE	T VERGORA FOR ET-TI	1005 5	FADRICATE SPR HCMING THAT A HE SPRING ENDS	
AIRFRAME-A/B BOOSTER SECTION	GOA/BKFE4-010/L3-401-00-264 BOO18	7.194	2960	FALC2-5 65	<b>9</b> 9		001277
FAILURE MODE-OUT OF RAIURES TO 309 DEG F RESPECTIVELY. THESE H F DOOM.	FAILURE MODE-OUT OF EXPECTED TEST VALUE MIGH TEMPERATURES EXISTED IN THE VEHICLE THRUST CHANGER. GUAD 1/2 MAD TEMPE RATURES TO 300 DEG F AT 103 SECONDS AND 120 SECONDS RATURES TO 300 DEG F AT 103 SECONDS AND 120 SECONDS RESPECTIVELY. THESE HIGH TEMPERATURES MERE DETERMINED TO RESULT FROM MOT GASES DRAWN THROUGH A DEPECTIVE BOOT OR TRAP DOCK.	S EXISTED IN THE VEH HAD PEARS TO OVER SSI RESULT FROM HOT SASE!	ICLE THRUS DEG F AT DERM TH	T CHAMEER 105 SECO ROUGH A D	. ewb	1.72 HAD TEHPE AD 120 AECONDS 1VE BOOT OR TRA	
BYBTEH EFFECT-HIGH T	SYSTEM EFFECT-MIGM TENFERATURE ENVIRONMENT.						
CORRECTIVE ACTION-AD	VEHICLE EFFECT-NOME. CORRECTIVE ACTION-ADDITIONAL INSTRUMENTATION MAS INSTALLED ON FUTURE VEHICLES TO PROVIDE DATA MECESSARY TO DETERMIN A ADOLT ENVIRONMENT BO THAT EVALUATION OF BOOT ADESUACY CAN BE PERFORMED.	ED ON FUTURE VEHICLE IN BE PERFORMED.	TO PROVI	DE DATA H	ECE SA	LRY TO DETERMIN	
							1
						PAGE DODS	T

13 JUN 1986

	despondent of deservers and participations	THAME STORES ALICON	ž			
Marenco Bucherster	TEST/REFORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TI	SITE PRI HE BIF OTH	VEHICLE SITE PRI VENDOR NAME DATE DIF THE DIF OTH VENDOR PART MO	
AME-A/B	60/A-BNF64-055/L3-402-00-203	FLICHT	285D 2-3 64D225 61.9	9 TE8		***************************************
FAILURE MOJE-STRUKTED L POSSIBLY COMOULATED L	FAILURE HODE-STRUCTURAL, AN COLECT WAS BEEN ON FILM FALLING FROM THE BOOKIER TURBINE EXHAUST AREA. THIS GOLECT WAS OSSIBLY COAGULNTED LURE OIL OR UMBURHED FROMELLANT FROM THE TURRING LYHAUST, OR COMLESCING OF TURBING EXHAUST SABES	ig from the bookier ie terring exhaust,	TURBLUE EXHAU	ST AREA.	HIS COJECT WAS C EXHAUST GASES	
SYSTEM EFFECT-NUME.						
VEHICLE EFFECT-NOME.						
CORP.CTIVE ACTION-NE	CORP.CTIVE ACTION-NO CORRECTIVE ACTION TAKEN.	•				
AIRFRANG-A/B BODSTER SECTION	GO/2-BKF64-U06/L3-402-00-265	FLIGHT	2850 2-0	2-3/FALC YES		920934
FAILURE MODE-OUT OF TOLERANCE, THRUST MI TO-45 DEG. F AL 80 SECOMOS AND BUND LY IN THE SUSTAINER HIGH PRESSUME FEED RESSURE FRANSDUCER SENSE LING FROZE.	OF TOLERANCE. THRUST SECTION TEMPERATURES DECREASED TO BAID LIMIT IN QUADS 2 AND GUAD 4. GUAD 4 NE. BD DECOMES AND GUAD 2 MENT TO ~45 DEC. F AT 220 SECOMES. THIS IS ATTRIBUTED TO A LOX LEAR, PROBABAR HIGH PRESSUVE FEED SYSTEM BETHEEN THE LOX POWF AND INJECTOR, THE BUSTAINER FUEL PUMP DISCHARGE PISENEE FROZE.	DECREASED TO BAID AT 220 SECONDS. TH OX FORM AND INJECTO	LIMIT IN QUAD: IN IS ATTRIBU R. THE BUSTAIN	S 2 AND BUTED TO A LE	AD 4. GIME 4 NE. OX LEAK, PROBAB TUMP DISCHARGE P	
SYSTEM EFFECT-10HE.						
CCRFECTIVE ACTION-NC QUATELY FOR CORRECTIVARY TANK FLANGE FITTI	CCRPECTIVE ACTION-NO CORRECTIVE ACTION TAKEN- AS A DIRECT RESULT OF THIS PLIGHT, THE LEAK COULD NOT BE ISOLATED ADE QUATELY FIR CORRECTIVE ACTION, 2D/C NOW RETORQUES ALL PITTINGS AND ENGINE BOLTS PRIOR TO PLIGHT AND HASCHANKED LOX ST ART TANK FLANCE PITTINGS TO SOLVE PROBLEM.	RESULT OF THIS PLIS 68 AND ENGINE BOLTS	HT, THE LEAK O	COULD NOT	BE ISCLATED ADE ISCHANGED LOX \$T	
AIRFRAME-A/B BOOSTER SECTION	LV-98-02-044F LNZ VENT GASKET	FAR 27-78404-7	E500 E11	ETRM-1 YEI	YES KINKHILLAUBOEN HO	9182
FAILURE MODE-EXTERNA ME FIBERGLASS SMIELD	FAILURE MODE-EXTERNAL LEAK-OVERBOARD DUCT GASKET 1443 FOUND ME FIBERGLASS SMIELD 27-78402-1 DURING ASSEMBLY AT FACTORY.	TO BE CUT DURING ROUTINE INSPECTION. GASKET NAS CUT BY T	OUTINE INSFEC	110N. 6AS	ET 148 CUT BY T	
CCRRECTIVE ACTION-LNE	AS TRANSFER PRESSURE WAS REDUCED, THUS PREVENTING LEAKAGE BY ALLOMING BOIL	PREVENTING LEAKAGE	BY ALLOWING BO	אור סיד.		
AIRFRAME-A/B BOODTER SECTION	CT-88-OE-DESP FITTING SOCKET-BEARING, MISSILE SU 7-81100-P PFORT	FAR U 7-81100-7	1950 CYR 640121	2 9		

FAILURE HODE-OUT OF TOLERANCE, AN AMNULAR PLAT SPOT AT THE END OF THE BOCKET BORE PREVENTED BUFFICIENT TRAILER BALL ENGACEMENT TO ALLOM LOCKING THE BOCKET. CAUSE WAS INADEBUATE MACHINING OF THE SOCKET BORE.

15 JUN 1966

23:848-80#	FAILED COMPONENT NAME	PART NUMBER	DATE DIF TIME DI	TIME DIF OTH VENDOR PART NO	
CORRECTIVE ACTION-COR	CONFIRMED. PRODUCTION AND INSPECTION WERE NOTIFIED OF FAILURE CAUSE. IT WAS RECOMMENDED THAT INSP. GO GAGE CORRESPONDING TO THE MAXINUM BALL DIAMETER TO DETERMINE IF THE SOCKET CAM BE LOCKED.	RE ROTIFIED OF FAILURI	CAUSE, IT WAS R	. 17 MAS RECOMMENDED THAT INSPINE SOCKET CAM BE LOCKED.	****
AIRFRANG-A/S BODSTER SECTION	GOA-APZE4-002 0E-N31-30-109	FLIGIT	109F 031F-2	768 30	•
FAILURE MONE-OUT OF 1245, 41245, AIR OF 505T L	DF TOLERANCE. MIGH ENGINE COMPARTHENT TEMPERATURES WERE RECORDED DUSTMG BOOSIER PHASE OF 233, A1231, BETVERN RE AND SUST STA 1255, A1271, GZ I LUGE TA'M OVER 1018 DGF, OTHER TEMPS AS HIGH AS 020 DGF.	HPERATURES WERE RECORI , AIRET, BETUEN RE AI S HIGH AS GRO DGF.	NEC DUMING BOOSTE ID SUST STA 1255,	R PHASE CF FLIGHT. A A1277, 02 37A 1E55,	
SYNTEM EFFECT-HICH IN	SYNTEM EFFECT-MICH TEMPERLTURE ENVIRONMENT. NO ADVERSE SYSTEM PERFORMINCE WAS DETECTED AS A RESULT OF THE MICH TEMP RATURE EKVIRONMENT.	STEN PERFORIGINCE WAS	DETECTED AS A RES	ULT OF THE HIGH TEMP	
VEHICLE EFFECT-NOME.					
CORRECTIVE ACTION-NOT	CORPECTIVE ACTION-NOME-THE CAUSE AND MATURE OF THE HIGH TEMPERATURES HAVE NOT BEEN DETERMINED MOMEVER IT HAS BEEN N NED THAT THE PISE IN TEMPERATURE OCCURRED AFTER BASE PRESSURE REVERSAL.	EMPERATURES MAVE NOT I	HEEN DETERMINED H	CHEVER IT HAS BEEN N	<del></del>
VIRFRAME-AVD HODSTER SECTION	SP-99-02-031F LOHGERON, BRACKET ATTACH	FAR 27-70293-34	250D FACTORY \$31127	YES 60, FT. MORTH NO 27-78293-34	******
FAILURE MODE-STRUCTUS HING BRACKET WAS COMPI EROM AT THSTALLATION, CCC:POSITE TESTS.	FAILURE MODE-STRUCTURAL. THE 7075-16 EXTRUDED LONGERON WAS FOUND CRECKED IN AREA OF DRACKET ATTACH MOLES. THE ATTACH HAS DEACHED WAS COMPLETELY FRACTURED. FAILURE WAS CAUSED BY TWO FACTORS-SINGLY OR JOINTLY-1. FORCE FITTING OF LONG FROW AT INSTALLATION. 2. SHEAR LOADING BY BRACKET ATTACHMENT MULTIPLIED BY OCCILLATING FORCES ON THE BOOSTER DURING COCHOSITE TESTS.	S FOUND CRECKED IN ARI BY TWO FACTORS-SINGLY HT MULTI-LIED BY OUCTI	EA OF BRACKET ATT OR JOINTLY- 1. F. LATING FORCES ON	ACH MOLES, THE ATTAC ORCE FITTING OF LONG THE BOOSTER DURING	
COFFECTIVE ACTION-1. HOLES WERE SLOTTED TO SUPFORT THE THRUST SE OF DRACKETS BEFORE AF	1. CIC 50777 OF 27/3/63 CHANGED BRACKET MATERIAL FROM 7075-TG TO 17-4 PA STAIMESS STEEL, ATTACH TO ILLUMINATE SLIGHT MISALIGHMENT AND VIBBATION STRESSES. Z. A FIXTURE IL.H. AND R.H. NAS MADE TO SECTION WHEN FAIRING IS REMOVED AND DURING COMPOSITE TESTS. S. GD/A NOM MAKES INPLANT INSPECTION AND AFTER CONFUSITE TESTS AND REQUIRING FURNAL DOCUMENTATION IN THE MISSILE RECORDS. THESE CHANGE N REFLIES, DATED 18/2/63 AND SEQUIRING FURNAL DOCUMENTATION IN THE MISSILE RECORDS. THESE CHANGE	MATERIAL FROM 7075-TI 18RATION STRESSES. Z. RING COMPOSITE TESTS. G FURMAL DOCUMENTATION PAR SP-98-02-3606.	1 TO 17-4 P4 STAT A FIXTURE (L.H. 3. GO/A NOW MAKE IN THE MISSILE (	MESS STEEL. ATTACH AND SCHI MAS MADE TO SI INPLANT INSPECTION RECORDS. THESE CYANG	
AIRFRAME-A/B BOOSTER SECTION	GCA63-1237/PEA-LO-01-0A0E BOO19	COMPOSITE-FREZDPL	1260 36A 8311£7 -7140	8 8	***
FAILURE MODE-OUT OF 1	F TOLERANCE. INSTALLATION OF EMGING RADIATION BOOTS WAS NOT COMPLETED BY PRESCRIBED TIME, SCHEDUL	TATION BOOTS WAS NOT C	OMPLETED BY MES	CRIBED TIME, SCHEDUL	
SYSTEM EFFECT-MONE. 1	BYBTEH EFFECT-MONE. VEHICLE EFFECT-COUNTDOWN DELAIES. 18 HINUTE HOLD.	HINUTE HOLD.			
WEHICLE EFFECT-COUNTD	WEHICLE EFFECT-COUNTDOWN DELAYED. 89 NINUTE HOLD.				
CORRECTIVE ACTION-HOL	HOLD TO COMPLETE BOOT INSTALLATION.				

15 JUN 1966

## GENERAL DYNAMICS CONVAIR DIVIBION

	DIFFICULTIES REVIEW-AIMFRAME SYSTEM-AIRBORNE	FRAME SYSTEM-AIRBORN	u			
8487EX	TEST/REPORT NUMBER FAILED COMPONENT HAME	DIF DATA SOURCE	VEHICLE DATE DIF	SITE TIME DIF	PRI VENDOR MANE OTH VENDOR PART NO	······································
AIFFRAME-A/B BOOSTER SECTION	LV-18-GE-GASC RADIATION BOOT ABSEMBLY	FAR 27-77008-803	2630 830425	E 7 R	<b>2</b> 2	C00307
FAILURE MODE-COMTAMIMATICM-WHITE DEPOSITS HAD DEEH APPLIED TO BROKEN THREADS OR SMALL ERE MERE IND FAILURES ON THIS PART HUNGER.	FAILUNG MODE-CONTAMINATION-WHITE DEPOSITS FOUND IN MANY AREAS OF BOOT. THESE WHITE SWOIS MERE ICTION EMULSION THAT NAD DEEN APPLIED TO BROKEN THREADS OR SMALL HOLES TO PREVENT FRATING OR UMANYELLING OF THE REMAINER OF THE CLOTH. TH NE MERE THO FAILUNES ON THIS PART HUMBER.	eas of boot. These with that the or unday?	HITE SPOIS	MERE SEF	ON ENULSION THAT	,
CORRECTIVE ACTION-NOWE-F	CORRECTIVE ACTION-MONE-PARTS NOT RECEIVED FOR ANALYSIS. PARTS WERE SENT TO MATERIAL REVIEW BOARD.	RTH WERE BENT TO HAT	ERIAL REVIE	H BOARD.		·
AIRFRANC-A/B BOOSTER SECTION	GU/A63-0965/C1-501-00-71	PL1941	71E 630925	77	7£3 140	×24002
FAILURE MODE-OUT OF EXPECTED TE OF 318 DEGREES F AT 122 SECONDS.	OF EXPECTED TEST VALUE, TEMPERATURE STARTED TO INCREADE AT TY SECONDS AND PEAKED AT A TEMPERATURE. T 122 DECONDS.	ED TO INCREASE AT TY	SECONDS AN	Ø PEAKED	11 A TEMPERATUME	
SYSTEM EFFECT-HIGH TEMPERATURE ENVIRONMENT.	RATURE ENVIRONMENT.			÷		
VEHICLE EFFECT-MONG.						
CORRECTIVE ACTION-NOME.						
AIRTRANG-A/E DOOSTER SECTION	40.463-0874/01-401-00-64	PLIC.T	64D 630911 S	B-1 96.6	7E3 70	291760
FAILURE PKOE-OUTSIDE EXP T THE LOSS OF VERNIER ACC D, 32D, 6TD, 6EE).	FAILURE HODE-OUTGIDE EXPECTED TEMPERATURE RANGE-HIGH. ALTHOUGH ENGINE COMPARIMENT TEMPS NOT MONITORED ON THIS PLIGH T THE LOSS OF VERNIER ACCUMULATOR GAS CHARGE AT 96.6 SECE FITS OBSENVED PATTERN OF HOT EMGINE COMPARTMENT TEMPS. 142 D, 32D, 8TD, 6EE).	DUGH ENGINE COMPARTH ITB CBSENYED PATTERN	CNT TEMPS N	OT MONITO	TEMPS NOT MONITORED ON THIS FLIGHTON EMPS. 442	·
SYSTEM EFFECT-HOT ENGINE	SYSTEM EFFECT-HOT ENGINE COMPARTMENT ASSUMED, HOMEVER, THRUST SECTION WAS NCT INSTRUMENTED.	UST BECTION WAS NOT	INSTRUCENTE	ģ		
VEHICLE EFFECT-LOSS OF V	VEHICLE EFFECT-LOGS OF VEHICIE STABILITY CAURED BY VERNIER HYDRAILLIC SYSTEM FAILURE. STABILITY LOST DURING VERNIER SOLO, VERNIER HYCRAULIC FAILURE CAUSED BY VERNIER ACCUMULATOR CHARGE LOSS DUE PROBABLY TO HOT ENGINE COMPARTMENT.	HYDRAULIC SYSTEM FA OR CHARGE LOSS DUE P	ILURE. STAE	HOT ENGI	IT DURING VERNIER IE CORPARTMENT.	
ACTION-NONE	ON D SERIES OPERATIONAL VEHICLES. EININE BOOTS IMPROVED FOR SPACE PROGRAMS VEHICLES	KLINE BOOTS THPROVED	FOR SPACE	PROGRAMS	VEHICLES	
AIRFRANC-A/B BOOSTER SECTION	G0A63-0709/01-501-2.1	FLIGHT	2.E		YES NO	
FAILURE MOE-OUT OF EXPE MGINE GUAD 1/2 BIDE, THE	T OF EXPECTED TEST VALUE—A HIGH TENPERATURE ENVIRONMENT WAS NOTED IN THE VICINITY OF THE SUSTAINER DE. THE HIGH TEMPERATURE BOJACE WAS NOT DETERMINED.	ENVIRONHENT WAS NOT FERMINED.	ED IN THE	/ICINITY	F THE BUSTAINER E	

PASE DOLL

BYBIEH EFFECT-HIGH TEMPERATURE ENVIRONMENT-BIARTING AT 70 BECOMDS AN ABHORNAL TEMPERATURE RISE WAS MOTED IN THE ENG IME COMPANTMENT, AGG DEG F MAS NECORDED AT 110 BECOMDS AT MHICH TIME A SLOW TEMPERATURE DECAY OCCURRED.

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19 JUN 1986

GENERAL BYNAMICS CONVAIR DIVISION

	9991 807 51	DIFFICULTIES REVIEW-AINFRAME BYSTEM-AIRBORNE	RAHE BYSTEM-AIRBORN	w				
	SYSTEM SUG-SYSTEM	TEST/REFORT NUMBER FAILED COMFOMENT NAME	DIF DATA BOURCE PART HUMBER	VEHICLE DATE DIF	\$17E 71ME 01F	- H	PRI VENDOR NAME OTH VENDOR PART NO	
	VEHICLE EFFECT-NOME.							005520
	AIRFRAME-A/B ROOSIER SECTION	00/463-0331/73-401-00-198	FLIGHT	1960	A-8 80.5	÷ 8		# # # # # # # # # # # # # # # # # # #
	FAILURE MODE-CUT OF EXPEC	FAILUKE MODE-CUT OF EXPECTED TEST VALUE, ENGINE COMPARTMENT TEMP MEASUREMENT F147 ON 811 LOX 80LO SUFFORT STRUT IND ICATED A HIGHER THAM MORMAL INCREASE FROM 33 DEGREES F AT 80 SEC. TO A MAX OF 385 DEG. F. BY BECO.	TEHP MEASUREMENT P SEC. TO A MAX OF 3	147 CH 011 85 DEG. F.	BY BECO.	\$	PORT STRUT IND	
	STSTEM EFFECT-HIGH TEMPE	SYSTEM EFFECT-HIGH TEMPERATURE ENVIRONKENT IN ENGINE COMPARTHENT CAUSED NO ADVERSE SYSTEM CPERATICM.	THENT CAUSED NO ADV	FRSE SYBTE	H CPERAT	<u>:</u>		
	VEHICLE EFFECT-NONE.							
	CORRECTIVE ACTION: ENGINE AIRFRAME-A/B	CORRECTIVE ACTION-FINEINE DOOT AND FIRESHIELD MODIFICATIONS WERE MADE ON SUBSEQUENT VEHICLES.  REAMCA.B ELECT	ERE MADE ON SUBSEQ	UCNT VEHIC	LES.	1		
	BOOSTER SECTION	HYDRAULIC RISE OFF DISCONNECT RADI 27-78-108	27-78506	630612	•	8		
	FAILURE HODE-STRUCTURAL. RIBUTED TO EXPANSION OF T	FAILURE HODE-STRUCTURAL. LOSS OF SECOND AND THIRD SECTIONS OF THE RADIATION SHIELD DUNING LIFTOFF SEQUENCE, WAS ATT RIBUTED TO EXPANSICE OF THE OUTER TELESCOPING SECTION.	OF THE RADIATION SH	IELD DUNIN	e LIFTOFI	35.9	UENCE, WAS ATT	
	SYSTEM EFFECT-NONE.							
	VEHICLE EFFECT-LOSS OF M SIPUCTURALLY WEAKEN AND E- LE DESTRUCTION AT 93,413	VENICLE EFFECT-LOSS OF VEHICLE INTEGRITY. FAILURE OF RADIATION SHIELD DURING LIFTOFF, ALLOWED RADIATION HEATING TO SIPUCTURALLY WEAKEN AND EVENTUALLY RUFTURE THE HIGH PRESSURE BOOSTER HYDRAULIC DISCOMECT. FAILURE RESULTED IN VEHIC LE DESTRUCTION AT 93.413 SECONDS.	ION SHIELD DURING L	IFTOFF, AL	LOWED RAIL	DIATI E RES	ON HEATING TO	
	CORECTIVE ACTION-CHICK TAINER HIGH PRESSURE HIME	CORRECTIVE ACTION-CHICK VALVES AND HYDRAULIC RELEASE LADDER PRESSURE SWITCHES WERE INSTALLED IN THE DODGIER AND SUB TAINER HIGH PRESSURE LINGS UPSTREAM OF THE RISE OFF DISCONNECTS. IN ADDITION, THE RISE OFF DISCONNECT PANEL WAS REDE SIGNED.	PRESSURE SWITCHES CTS. IN ADDITION: T	WERE INSTA	F PISCON	THE D	COSTER AND SUB- PANEL NAS RECE	
	AIRFRANG-A/B BOOSTER SECTION	60/A63-0363/01-501-00-62	riet	62 E 630604	1-1	<u>چ</u> ج		
3	FAILUNE MODE-OUT OF EXPC. TAINER ENGINE DURING BCOSTOF THE SUSTAINER HYDAALLI	FAILUNE MODE-OUT OF EXPECTED TEST VALUE, ABNORMALLY MIGH ENGINE COMPARTMENT TEMPERATURES WERE RECORDED MEAR THE SUS Tainer engine during beoster phase, maximum temperature has 300 degrees f, at 100 seconds, measured in the Vicinity Of the Sustainer Hydalule pump.	GINE COMPATMENT TE 388 DEGREES F. AT 1	HPERATURES OB BECONDS	VERE RE		O MEAR THE BUB	
	SYNTEM EFFECT-HIGH TEMPEL	SYSTEM EFFECT-HIGH TEMPERATURE ENVIRONMENT-NC COMPONENT FAILUME OCCURRED AS A RESULT OF THE HIGH TEMPERATURE.	LURE OCCURRED AN A	PEBULT OF	THE HIEM	100	RATURE.	
	VEHICLE EFFECT-MONE.							
	CORRECTIVE ACTION-NOME.							
•		**************************************					B 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	-

13 JUN 1866

THE REAL PROPERTY AND THE PERSON NAMED IN COLUMN TWO IS NOT THE OWNER.	and the second s	THE PARTY OF THE PROPERTY OF THE PARTY OF TH		Designation of the last of		a separateira de la companya del companya de la companya de la companya de la companya del companya de la compa	
SYSTEM SCS-078TEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SCURCE	VEHICLE DATE BIF	317E 11HE DIF	PRI VENDO	SITE PRI VENDOR HANE	
AIPFEANE-A/B ROOSTER SLITICH	CO/AR3-0343/01-301-00-62	FLICHT	62E 630604	:	7 S		0
FATTURE HODE-STRUCTURAL, 1 TOFF, THE HIGHEST VALUE WAS	FATIUSE HOGE-STRUCTURAL, THRUST SECTION VIBRATION MEASURENCHIS REFLECIED A SHORT BUILDUP OF VIRRATION EMERGY AS LIF TOFF, THE HICHEST VALUE MAS 34 GIRMS) AT 850 CPS PEAR THE CHELK VALVE PUEL LINE.	HUNTS REFLECTED A SHO CHECK YALVE PUEL LINE	AT BUILDU	of VIER	ATTON ENER	GY AF LIF	
STSTEN EFFECT-MONE.			,				
YEHICLE EFFECT-NONE.							
CONHECTIVE (CTION-MOME.							+
AIRFRAME-AVB BOOSTEE SECTION	60/A63-0363/01-501-00-62,	RIGHT	62E 630604	F-1 14.31	ž č		90
SATILURE NO.E-STRUCTURAL. "	FAILURE HOLE-STRUCTURAL. TWO OBJECTS WERE COSERVED TO FALL FROM THE MISSILE FROM BETWEEN THE VERNIER 1 ENGINE AND 8 UAG 4 HAIN LOX LINE, THE MATURE AND EXACT ORISIN OF THE COSECTS IS NOT RICOM.	L FROM THE MIDSILE FI JECTS IS NOT KNOWN.	ION BETWEE	H THE VER	NICR 1 EM	THE AND &	
SISTEM EFFECT-MONE.							
VEHICLE EFFECT-MONE.							
COMECTIVE ACTION-NOWE.			apolitica e de escara de escara				<del></del> †
AIRFRANC-A/B BOOSTER SECTION	CD/A63-CZ08/60/ALE-403-00-119	F_1647	1195 630309	*	<b>9</b> 9		1290437
FAILURE WOLE-OUT OF TOLER. COSTER FOSTION OF PLIGHT 3 OF 381 DEG. F.	OF TOLERANCE, HIGHER THAN NORTHL EMBINE COMPARTHENT THERMAL ENVISONMENT WAS INDICATED DURING THE B PLIGHT STARTING AT APPROXIMATELY TO SECONDS. THE MAXIKUM TEMPERATURE EXCEEDED THE UPPER IBW LIMIT	COSPARTHENT THERMAL I MOS. THE MAKIKUM TEN	ENVINCEMEN PERATURE E	T WAS IND MCEEDED 1	HE UPPER	THE B.	
SYSTEM EFFECT-HIGH TEMPER. T.	SYSTEM EFFECT-HIGH TEMPERATURE ENVIRONMENT, NO DETRINENTAL EFFECTS DUE TO THE HIGH THERMAL ENVIRONMENT WERE APPAREN	L EFFECTS DUE TO THE	HIGH THER	MAL EHVII	IONNENT ME	RE APPAREN	
VEHICLE EFFECT-NONE, NO D	VEHICLE EFFECT-NOME, MO DETRINENTAL WEHICLE CFFECTS DUC TO THE HIGH THERMAL ENVIRGNMENT MERE AFFARENT.	O THE HIGH THERMAL E	HVIRONMENT	NERE AM	ARENT.		
CORRECTIVE ACTION-MONE. A MTS. ENGINE BOOTS. AND CHAINE BUST SECTION.	CORRECTIVE ACTION-MONE. AS A DIRECT RESULT OF THIS PLIGHT. LATER ACTION CONSISTED OF REDESIGNED FIRESMIELD ATTACHME HTS. ENGINE BOOTS, AND CHANGES TO THE FIRESMIELD ATTACHMENTS AND OPENSINGS TO PRECLUDE MOT GASES FROM ENTERING THE TH HUST SECTION.	. LATER ACTION CONSI	STED OF RE RECLUDE HO	DESIGNED IT GASES !	FIRESHIEL ROM ENTER	D ATTACHME ING THE TH	1
AIRFRAME-A/B	60/463-0107/01-501-00-89 SHIELD	7,1997	65E 6304£4	8.17-1	£ 9		

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13 JUN 1966

13 JUN 1866	DIFFICULTIES REVIEW-AIRFRAME SYSTEM-AIRBORNE	FRAME SYSTEM-AIRBORN	••				_
\$7.57EH \$06-5137EF	TEST/MEPONT NUMBER FAILED COMPONENT MANS	DIF DATA BOURCE PART NUMBER	VEHICLE DATE DIF	1116 DIF	PRIO	PRI VENDOR NAME OTH VENDOR PART NO	
SYSTEM EFFECT-MONE.							:
VEHICLE EFFECT-NONE.							
COURECTIVE ACTION-ADD	CORRECTIVE ACTION-ADDITIONAL SECURING OF THE THE TO THE SHIELD WAS INCOMPORATED. SURVEYS PERFORMED TO ASSURE THAT 7/16 INCH WASHERS HAD HOT BEEN SUBSTITUDED FOR 7/8 INCH WASHERS AS INCOMEL SECURING DEVICES.	INCH WASHERS AS INCO	CORPORATED NEL SECURI	. RURVEYS	PER.	CRINED TO ASSU	•
ATETRAMC-A/B BOOMTER SECTION	60/463-6107/01-501-00-63	FLIENT	45E 630424	087F-1 125	88		999437
FAILURE MICE-FAIL DUR BEFORE STAGING, MEAT	FAILURE HIGE-FAIL DURING OPENATION. AMBIENT TEMPERATURE NEAR THE BI GAS GENERATOR REACHED 270 DEGREES F IMMEDIATELY Defore staging, heat radiation from the Gas Generator is believed to be the cause.	EAR THE BI GAS GENERA BELIEVED TO BE THE CA	TOR REACHI	ID £70 0E(	AEE	F IMEDIATELY	
SYSTEM EFFECT-HO.C.							
VEHICLE EFFECT-NOIG.			٠				
CORRECTIVE ACTION-NOME.							
AIRFHAME-A/B	94-90-08-3126F TUBE ASSEMBLY-SEPARATION MELIUM SU E7-45400-39 PPLY-8-NUT	FAR 8U E7-45400-89	1180	1-2 PALC YES	<b>2</b> 2		***************************************
FAILURE MODE-EXTERNAL ATED 430316 FROM VAFB	FAILURE MODE-EXTERNAL LEARAGE. B-NUT-LEARAGE, POSSIBLE-BIRESS RÉLAMATION-MUT.NAS RETORGUED AND LEAK STOPPED. THA D ATED 630316 FROM VAFB COMFIRMED THAT TUBE ASSEMBLY MOULD NOT BE FORMANDED FOR ANALYSIS.	RESS RELAMATION. MUT. OT BE FORMANDED FOR J	HAS RETOR	BUED AND	EA	STOPPED. TWR D	
CORRECTIVE ACTION-6D/ HE REJECTION AND REGUE	CCRECTIVE ACTION-GD/C IS CONDUCTING TESTS ON STRESS RELAXATION OF 8-NUTS. AFFROPRIATE PERSONNEL NENE INFORMED OF ME. REJECTION AND REGULSTED TO MAY PAPTICULAR ATTENTION TO TORGUING 8-NUTS PER RAR SP-80-05-3546.	XATION OF B-NUTS. AF	ROPRIATE	PERSONEL DS-3846.	Ä	INCONED OF T	
AIRFRANG-A/D BCOSTER SECTION	AQJ65-00-109-501-00-65	FLIGHT	430321	2 2 2	ž 2	7E8 60/C	•
FAILURE MODE-STRUCTUR SECONDS AFTER LIFTOFF. CING PANEL DOOR, OR A	FAILUME MOE-STRUCTURAL, TRACKING FILM DISCLOSED A REPLECTIVE ARTICLE PALLING FROM THE MISSILE AT APPROXIMATELY SA Accous after liftoff. Object Thought to be one of the Pollowing, be turbine spinner access doom, be hidraulic beny Cing panel doom, or a section of meat shield incomel facing.	TIVE ANTICLE PALLING LOWING, BE TURBING & M.	PRON THE	HISBILE A	4 2	HOXIMATELY 34 Indraulic Bervi	
STATEM EPPECT-NOME.							
WENTELE EFFECT-NONE.	NO ADVERSE EFFECTS NEWE NOTED ON VEHICLE PERFORMANCE.	HOLE PERFORMANCE.					
CORPECTIVE ACTION-NO	CORRECTIVE ACTION-NOWE, PART WAS NOT POSITIVELY IDENTIFIED.	.93					

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VEHICLE EFFECT-KOME, NO EFFECT ON AN' STRTEM. BYBICK EFFECT-NICH TENPERATURE ENVIRONMENT.

CORRECTIVE ACTION-NOME

GENERAL DYNAHICS CONVAIR DIVISION

15 JUN 1967

PAGE

VEHICLE EFFECT-LOSS OF VEHICLE STASILITY FOLLOMED BY LOSS OF INTEGRITY AS A RESULT OF BE ENGINE SHUTDOMN. BE ENGINE

GENERAL DYNAHICS CONVAIR DIVISION

15 JUN 1966

CONVAIR DIVISION

				4					
	SYSTEM SUG-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE PRI TIME DIF OTH	O P	VENDOR NAME VENDOR PART NO	NAME PART NO	
	AIRFRANC-A/B BOOSTER SECTION	A0463-0031/A1-40E-00-108	FLIGHT	1980	2.4.5	. Q			102200
	FAILURE MODE-OUT OF E ERATURE INCREASE FROM	OF EXPECTED 1837 VALUE. THE ENGINE CONPARTNENT ANDIENT TEMPERATURE : ROM TS TO 100-5 SECONDS. AT WHICH TIME HIGH OF ROI DGF WAS REACHED.	PARTHENT ANDIENT TEMP	TEMPERATURE MEASUREMENT, PLAT SHOWED A TEMP WAS REACHED.	\$UREHENT	1	T SHOWED	A TEMP	
	SYSTEM EFFECT-HIGH TE	SYSTEM EFFECT-HIGH TEMPERATURE ENVIRONMENT.							
	VEHICLE EFFECT-NOME.								
	CORRECTIVE ACTION-NOME.	٠.							-
	AIRFRANE-A/B BOOSTER SECTION	AC-43-0004/32-607-810-73 BOOTS-81 EMGINE	CAPTIVE 27-77013-3	75F 630206	2	<b>2</b> 5			101666
	FAILURE HODE-STRUCTUR	CTURAL. FOST TEST INSPECTION REVEALED A S INCH SEAM TEAR IN THE BS BOOT.	A S INCH SEAH TEAR IN	1 THE B1 B00	<b>:</b>				
	SYSTEM EFFECT-NONE								
	ENICLE EFFECT-NONE								
	CORRECTIVE ACTION-BOOT	T REPAIRED.							
	AIRFRAME-A/B BOOSTER SECTION	A0J63-0017/8£-401-00-39 BOOT	7.1ed	390	92 0.7	ž g	2/9		• • • • • • • • • • • • • • • • • • • •
	FAILURE MODE-STRUCTUR PEARED THAT THE BOOT C	FAILUNE MONE-STRUCTURAL. FIRE SHIELD TO SUSTAINER ENSINE BOOT CANE OFF BY D.7 SECONDS. THE BOOT WAS FOUND AND 17 AP Peared that the boot cable may have been inproperly tightemed; resulting in a cable failure.	C BOOT CAME OFF BY D. TENED, RESULTING IN A	7 MECONDS.	THE 8001 URE.	i	OURD AND	÷	
	SYSTEM EFFECT-HIGH TE	SYSTEM EFFECT-HIGH TEMPERATURE ENVIRONMENT. LOSS OF THE BOOT CAUSED HIGH ENGINE COMPARTHENT TEMPERATURES.	BOOT CAUSED HIGH EN	INE COMPART	HENT TEN	PERAT	AES.		
	VEHICLE EFFECT-PRENAT	VEHICLE EFFECT-PRENATURE PROPULSION SHUTDOWN. BOOSTER PERFORMNCE DECAY STARTED AT 70 SECONDS AND SUSTAINER OPERATI H STOPPED AFTER 106 SECONDS. THE ENGINES BHUTDOWN BY 126 SECONDS.	ERFORMANCE DECAY STAF	TED AT 70 8	ECONDS A	2 2	TAINER	PERAT!	
	CORRECTIVE ACTION-LWK:	-LYKNOMA, LATER VEHICLES HAD A REDESIGNED METHOD OF BOO? ATTACHMENT TO THE FIRE SHIELD, ELIMINATIN : FIRE SHIELD.	NED HETHOD OF BOOT AT	TACHMENT TO	THE FIR	# F	ינס, ננרזו	NT AN TIN	
-	ATREAME-A/B	AOU62-0010/01-502-00-64 BE 5007	7.1647	64E 021210	0877-1	ž 8			
	FAILURE MODE-STRUCTURA	FAILUME MODE-STRUCTURAL. AS A RESULT OF STARTING PRESSURE PULSE, THE BE ENGINE BOOT MIT AND DANAGED THE LUBE OIL TA He fill and draim disconnect fitting.	RE PULSE, THE BE ENG!	NE BOOT HIT	AND DAN	N & CO	ME LUBE	011 14	
_	SYSTEM EFFECT-NOME.								

13 JUN 1966

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19 1 NO 1966	DIPFICULTIES REVIEW-AIRFRAME SYSTEM-AIRBORME	AME SYSTEM-AIRBORNE				,
3787EM 348-3757EM	TEST/REFORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF 11	ATTE PRI	VEHICLE SITE PRI VENDOR PART NO	
SHUTDOWN WHEN LOSS OF LUE	SHUTDOWN WHEN LOSS OF LUBE OIL FAILED A PINION GEAR IN TURBORUMP.	FURP.			,	•
CORRECTIVE ACTION-METHOD OF ATTA- SING ENGINE START CHARACTERSTICS.	COKRECTIVE ACTION-METHOD OF ATTACHING BOOTS TO THE ENGINE WAS IMPROVED PRESSURE PULSE MACHITUSE WAS REDUCED BY CHAN INC ENGINE START CHARACTERSTICS.	IS IMPROVED PRESSURE	PULSE MAGN	TUDE MAS	REDUCED BY CHAN	
AIRFEAME-A/B BOCSTER SECTION	AOK 62-D047/LE-401-D0-131 FLIGHT HYCRAULIC RISE OFF DISCOMMECT RADI 27-78508 ATION SHIELD	FLIGHT 27-78508	1310 1-2 621217 0	er Er &		40120
FAILURE MODE-STRUCTURAL. DATA AND ATTRIBUTED TO EX	FAILURE MODE-STRUCTURAL. LOSS OF RISE OFF HYDRAULIC DISCONNECT RADIATION SHIELD AT LIFTOFF WAS CONFIRMED FROM FILM Data and attributed to expansion of the outer telescoping section of the smield.	CT RADIATION SHIELD	AT LIFTOFF	WAS CONFT	RHED FROM FILM	
SYSTEM EFFECT-NONE.						*****
VEHICLE EFFECT-LOSS OF VEHI TURALLY MEAREM AND EVENTUALL ESTRUCTION AT 80.52 SECONDS.	VEHICLE EFFECT-LOSS OF VEHICLE INTEGRITY, FAILURE OF RADIATION SHIELD AT LIFTOFF ALLONED RADIATION HEATING TO STRUCTURALLY MEANINE THE HIGH PRESSURE BOOSTER HYDRAULIC DISCOMECT, FAILURE RESULTED IN VEHICLE DESTRUCTION AT 80.52 SECONDS.	ION SHIELD AT LIFTOF HER HYDRAULIC DISCO	F ALLOWED R	NDIATION H JRE RESULT	EATING TO STRUCED IN VEHICLE D	
CORECTIVE ACTION-CHERK V TAINGR HICH PRESSURE LINES TONED.	CORFECTIVE ACTION-CYEEK VALVES AND HYDRAULIC RELEASE LADGER PRESSURE BUTTCHES WERE INSTALLED IN THE BOOSTER AND SUS TAINGR HICH PRESSURE LINES UPSIREAM OF THE RISE OFF DISCONNECTS. IN ADDITION: THE RISEOFF DISCONNECT PANÉL WAS REDES 16NED.	PRESSURE SKITCHER I TB. IN ADDITION, TV	ERE INSTALL E RISEOFF D	ID IN THE	BOOSTER AND BUS PANEL MAS REDES	,
AIRFRAME-A/B BOOSTER ACCTICN	AQJ62-0107/A1-401-00-161	Rient	1610 A-3 621212 76	7ES		*****
FAILURE MUDE-OUT OF EXPER ASE STARTING AT 78 SECONDI	FAILURE MUSE-OUT OF EXPECTED VALUE, EMGINE COMPARTMENT TEMPERATURE MEASUREMENT, P147, INDICATED A TEMPERATURE INCRE ASE STARTIMG AT 78 SECONDS AND REACHIMS A MAXIMUM OF E40 DGF AT 104 BECONDS.	TATURE PEASUREMENT, AT 104 BECONDS.	P14T, 1101	31 A G3TA:	PERATURE INCRE	
SYSTEM EFFECT-HIGH TEMPERATURE ENVIRCHMENT.	ATURE ENVIRONMENT.					
WEHICLE EFFECT-NOME, NO A	VEHICLE EFFECT-NOME, NO ADVERSE EFFECTS AS A RESULT OF THIS HIGH TEMPERATURE WERE HOTED ON ANY OF THE MISSILE SYSTE 3.	HIGH TEMPERATURE WE	RE HOTED ON	ANY OF TH	E MISSILE SYSTE	
CORRECTIVE ACTION-UNERHOMA AREA.	CORRECTIVE ACTION-LARMOMA, LATER CHANGE IN ENGINE BOOTS TO MORE POSITIVELY SEAL THRUST SECTION PROM EMGINE EXHAUST Rea.	IORE POBITIVELY SEAL	THRUST SEC	TON PROM	EMGINE EXHAUST	
AIRFRANC-A/B BODSTER SECTION	80 162-0114/P1-601-00-21 808181NEN 8007	FLIGHT	EIF 11 GELEOS YE	¥ 3	YES 60 CONVAIR	
FAILURE MODE-FAIL DURING TAINGR ENGINE BOOT POSSIBL	FAILURE MODE-FAIL DURING GPERATION, EVIDENCE FROM TEMPERATURE MEASURENENTS INDICATES INFLUX OF HOT GASES AROUND SUB FAINGR ENGINE BOOT POSSIBLE DANGE TO BOOT BY PRESSURE PULSE AT LIFTOFF.	IE MEASUREMENTS THDI AT LIFTOFF.	CATES INFLU	04 HOT &	ASES AROUND SUS	
SYSTEM EFFECT-HIGH TEMPER ES F UMILE MEASUREMENTS AS AND DO SECONDS. ASSET ROSE	SYSTEM EFFECT-MICH TEMPERATURE ENVIRONMENT. NO DETRINENTAL EFFECTS COSERVED. MEASUREMENT ASSST, INDICATED 140 DEGRE Es F Lamile Measurements assit and assit isusiainer lube oil tanki both indicated hore than edd degrees F betheen to And do seconds. Assit Rose to edd plub by beco, assit remained over edd and assit dropped to 173 degrees F by beco.	FFECTS CBSERVED, ME AMK) BOTH INDICATED ID OVER 200 AND ASSI	ASURENENT A HORE THAN T DROPPED T	1537, 1101 200 DECREE 3 173 DECR	CATED 160 DEGRES F BETWEEN 70 LES F BY SECO.	

WENTELE EFFECT-NOME.

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٠	NAME VART NO		MOR TH	URING MENT N	10777 B		PLIED TE TOTS SUNTERE	SOTTE DE LINE CONTING	
	VENDOR NAME		TES COFFORT WORTH	ROKEN D	MTE HIS MREWOVE MITE TE		TING AN	1. CIC 9 MISALIGA D AND DU STS WITH	
	1		763	KET B	283. 1 11.11111 13. 13 13. 13 13. 13 13. 13 13. 13 13. 13 13. 13 13. 13 13 13 13 13 13 13 13 13 13 13 13 13 1	ž č	SCILL SUPPO LOAD IN	DNS. 1 NATE 1 EMOVEG	ž 0
	VEHICLE SITE PRI VENDOR NAME DATE DIF TIME DIF OTH VENDOR PART NO		FACTORY	PPORT BRAC DING BY BR E TESTS.	HEE ACTIC KOLES TO 6 MEN FATER IND AFTER	FACTORY	SEVERE OF TAIL HOT S POSSIBLE I	HREE ACTION TO ELIMINE IS RUNG	FACTORY
u	VEHICLE DATE DIF		2500	IND THE BUT SHEAR LOAD F COMPOSITE	LUMENTED THE ATTACH P. RECTION N. THE BEFORE J.	2500 621127	CAUSED BY STER BOAT 1 STAND THE	CUMENTED TO TACH HOLES TO WHEN FATE	E 50D
DIFFICULTIES REVIEW-AIRFRAME SYSTEM-AIRBORNE	DIF DATA SOURCE PART NUMBER		FAR 87-78285-54	GUAD 3 MAS CRACKED A INSTALLATION AND OR ECTION SUPPORT DURING	18/83 AND 5/8/83 DOC STEEL AND SLOTTED TH TO SUPPORT THE THRUST CTION OF BRACKETS BOT	FAR 27-7823-7	CRACKED FROM PATIGUE E MORIZONTAL AND BOOM IN DIRECTION TO MITHS	718/83 AND 3/8/83 DOC BTEEL AND SLOTTED ATT RT THE THQUST SECTION BRACKETS BOTH BEFORE	FAR E7-70225-5
	TEST/REPORT NUMBER FAILED COMPOMENT NAME		3P-99-02-031F LONGERON	FAILURE MOU-STRUCTUPAL-THE ALUMINUM EXTRUTED LONGEROM AT QUAD 3 MAS CRACKED AND THE SUPPORT BRACKET BROKEN DURING FINAL CHECF "J". CAUSE MAS FORCE FITTING OF LONGERON DURING INSTALLATION AND OR SHEAR LOADING BY BRACKET ATTACHMENT IN THEIED 8" ORGILLATING FORCES DUE TO LACK OF A BOOSTER SECTION SUPPORT DURING COMPOSITE TESTS.	CORRECTIVE ACTION-REPLIES TO RAR SP-99-DE-3804 RECEIVED 2/18/83 AND 5/8/83 DOCUMENTED THREE ACTIONS. 1. CIC 30777 D ATED 3/27/83 CHAMCED BRACKET MATERIAL TO 17-4 PH STAIMLESS STEEL AND SLOTTED THE ATTACH HOLES TO ELIMINATE MISALLIGH - HEHT AND VIRRATION. E. R.H. AND L.H. FIXTURES MERE MADE TO SUPPORT THE THAUST SECTION WHEN FAIRING IS REMOVED AND DURING COMPOSITE TESTS. 3. G.C. REQUESTED AN IMPLANT INSPECTION OF BRACKETS BOTH BEFORE AND AFTER COMPOSITE TEST WIT H DOCUMENTATION IN MISSILE RECORD.	SP-99-02-030P LOMERON SUPPORT BRACKET	FAILURE WODE-STRUCTURAL-THE ALUMINUM ALLOY BRACKETS WERE CRACKED FROM FATIGUE CAUSED BY SEVERE OSCILLATING APPLIED LOADS DURING FACTORY AUTOPILOT AND COMPOSITE TESTS WITH THE HORIZONTAL AND BOOSTER BOAT TAIL NOT SUPPOSITED. THE TOTS6 ALLOY IS NOT STRONG ENOUGH IN THE SHORT TRANSVERSE GRAIN DIRECTION TO WITHSTAND THE POSSIBLE LOADINGS ENCOUNTERED DURING AUTOPILOT COMPOSITE TESTS.  CORRECTIVE AUTOPILOT COMPOSITE TESTS.  CORRECTIVE AUTOM-REPLIES TO RAM SP-99-08-3804 RECEIVED EXIGORS AND 3/8/63 DOCUMENTED THREE ACTIONS. 1. CIC 50777 D ATED 3/27/63 CHANGED BRACKET MATERIAL TO 17-19M STAINLESS STEEL AND SLOTTED ATTACH HOLES TO ELIMINATE MISALIGHMENT A NO VIDRATION. 2. L.H. AND R.H. FIXTURES WERE WADE TO SUPPORT THE THRUST SECTION WHEN FATRING IS REMOVED AND DURING COMPOSITE TESTS WITH DOCUM	CORECTIVE ACTION-REPLIES TO RAR SP-99-DE-3604 RECEIVED EXIGNSS AND SZEZOBENTED THREE ACTIONS, 1. CIC 50777 D AIED 3/27/63 CHAMGED BRACKET MATERIAL TO 17-19M STAINLESS STEEL AND SLOTTED ATTACH MOLES TO ELIMINATE MISALIGNNENT A ND VIBRATION, 2. L.M. AND R.M. FIXTURES MERE MADE TO SUPPORT THE THOUST SECTION WHEN FATRING IS REMOVED AND DURING C OMPOSITE 1631S, 3. 9.C. REGUESTED AN IMPLANT INSPECTION OF BRACKETS BOTH BEFORE AND AFTER COMPOSITE TESTS WITH DOCUM ENTATION IN THE MISSILE RECORD.	SP-99-02-030P LONGERON SUPPORT BRACKET
	SYSTEN SUB-SYSTEN	CORRECTIVE ACTION-NOME.	AIRFRAME-A/B BOOSTER SECTION	FAILURE MODI-STRUCTURAL PINAL CHECF 'UT. CAUSE NA ULTIPLIED ET OBCILLATING	CORRECTIVE ACTION-REPLII ATED 3/27/63 CHANGED BRA - HENT AND VIRRATION. E. DURING COMPOSITE TESTS. H DOCUMENTATION IN HISSI	ATHFRAME-A/B BOOSTER SECTION	FAILURE MODE-STRUCTURAL-THE ALUMIN LOADS DURING FACTORY AUTOPLOT AND 4 ALLOY 13 MOT STROMG ENDUGY IN 1 D DURING AUTOPILOT COMPOSITE YESTS.	CORRECTIVE ACTION-REPLIES TO R ATED 3/27/63 CHAMGED BRACKET MA ND VIDSATION, 2. L.M. AND R.M. OMPOSITE 1ESTS, 3, 0.C. REGIEST ENTATION IN THE MISSILE RECORD.	AIRFRAME-17B BOOSTER SECTION

\*

CORRECTIVE ACTION-CIC 50777 DATED MARCH 27, 1963 CHANGED BRACKET MATERIAL TO 17-4 PH STAIMLESS STEEL AND SLOTTED AT TACH MOLES TO CLIMINATE MISALIGHMENT AND VIBRATION STRESSES. A LEPT AND RIGHT PIXTURE FOR THRUST SECTION SUPPORT DUR ING PAIRING REMOVAL MAS MADE. 60/A TO INSPECT BRACKETS BEFORE AND AFTER COMPOSITE TESTS. FORMAL DOCUMENTATION IN MIS SILE RECORDS IS REQUIRED. REFERENCE REPLIES TO RAR 8P-88-02-028-3604 DATED FEB 18-1 13-83 AND MAY 6, 1843.

FAILURE MODE-STRUCTURAL. CRACKED FROM FATIGUE DUE TO SEVERE OSCILLATING APPLIED LOADS DURING FACTORY AUTOPILOT AND COMPOSITE TESTS WITH MISSILE HORIZONTAL AND BOOSTER BOAT TAIL NOT SUPPORTED. THE 7075-TS ALWHINUM ALLOY IS NOT STROM 6 ENOUGH IN THE SHORT TRANSVERSE GRAIN DIRECTION TO WITHSTAND POSSIBLE LOADINGS ENCOUNTERED DURING TESTS.

#### XDT ##	DIFFICULTIES REVIEW-AIRFRANE SYSTEM-AIRBORNE	TAME SYSTEM-AIRBORNE					ı
3Y3TEH \$U0-3Y3TEM	TEST/REPORT NUMBER PAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE Date dif	SITE TIME DIF	PRIO	VEHICLE SITE PRI VENDOR MAME DATE DIF THE DIF OTH VENDOR PART NO	
AIRFRAME-A/B BOOSTER SECTION	A-B6-02-033F BOOSTER BOOT	FAR 27-77013-1	75F 621126	SYCAMORE YES 60/C	YE 3	<b>2/0</b> 5	• * * * * * * * * * * * * * * * * * * *
FAILURE MODE-STRUCTURAL-E E WITH IN SERVICE TEMP- EI XCESS OF 1000 DEGREES F.	FAILUKE MODE-STRUCTURAL-BOOJ ZIPPER MATERIAL EMBRITTLED DURING A 3 SECOMO MOT FIRING RUM. MATERIAL 18 MOT COMPATIBL E with in service temp- eratures, tests indicated material could stand less than 560 degrees, but exposures are in e KCESS OF 1000 degrees F.	ING A 3 SECOND HOT P CULD STAND LESS THAN	TRING RUN 1 360 DEGR	. HATERI.	1	NOT COMPATIBLE	
CORECTIVE ACTION-CONFIRMED, RAR A-88-DE-36 CED WITH A TEFLON CLOTH OR THAT THE PRESENT KAR STATES THAT THIS FAILURE IS AN ISOLATED TED BY THE FIBER- GLASS CLOTH FLAP, MANY OF		DT RECOMMENDED THAT THE COTTON DUCK MATERIAL USED IN ZIPPER MATERIAL BE COATED WITH A TEFLON ENULBION. DE. CASE WITH NO OTHERS OF THIS TYPE ON RECORD, ALSO THA SUCH TESTS WERE REPEAT FIRINGS USING THE SAME BOOTS.	MATERIAL LON EHULB RECORD. A	USED IN ION. DES LSO THAT BOOTS.	7 2 1 2 4 4 5 4 5 4 5 4 5 4 5 6 5 6 5 6 5 6 5 6	IPPER BE REPLA ROUP REPLY TO ERS ARE PROTEC	
AIRFRAME-A/B BOOSTER SECTION	A-88-02-032F \$U\$TAINER BOOT	FAR 27-77014-1	75F 621126	SYCAHORE YES 60/C	¥ Q	2/05	808808
FAILURE MODE-STRUCTURAL-	FAILURE MODE-STRUCTURAL-THREAD STITCHING HAD COME LOOSE AND MAS BROKEN. THE BOOT WAS FOUND DAMAGED AFTER A 3 SECOND MOT FIRING RUN. THE THREAD MAS DAMAGED DUKING STITCHING BECAUSE OF ITS MECHANICAL CHARACTERISTICS.	HAS BROKEN. THE BOC AUSE OF 17S MECHANIC	OT MAS FOU	ND DAMAGI	9 .	TER A S SECOND	
CORRECTIVE ACTION-CONFIRM	CORRECTIVE ACTION-CONFIRMED, ECPRIZE EFFECTIVE 1/30/82 AT OSTP-1 INCORPORATES THE REQUIREMENT OF COATING THE STITCH INC THREAD WITH TEFLON, ON MISSILES 24E, 82E, 83E, 87F, 88F AND 88F.	STF-1 INCORPORATES 175F AND 85F.	HE REQUIR	EHENT OF	COAT	ING THE BTITCH	1
AIRFRAME-A/B BOOSTER SECTION	A0162-0055/02-602-00-13	7.1647	13F 621114		9 H		
FAILURE MODE-OUT OF EXPENDENCE XPLOSION AT 19.84 SECONDS	FAILURE HODE-OUT OF EXPECTED TEST VALUE, FOR REASONS UNRHOWN, A FIRE MAS OBSERVED AT SEL4 SECONDS, FOLLOWED BY AN E PPLOSION AT 19.84 SECONDS AS INDICATED ON UIDIA AND YAW AND PITCH RATE.	N. A FIRE WAS COSEN	ED AT 16.	A SECOND	2	LLONED BY AN E	<u>.</u>
SYSTEM EFFECT-HIGH TEMPERATURE ENVIRONMENT. HENT FIRE WAS INDICATED. MAXIMUM TEMPERATURE	SYSTEM EFFECT-MIGH TEMPERATURE ENVIRONMENT, TEMPERATURES REMAINED NORMAL UNT Nemt fire was indicated, maximum temperature was aso degrees P at 34 seconds.	TEMPERATURES REMAINED NORMAL UNTIL 18.77 SECONDS WHEN AM ENGINE COMPART WAS 450 DEGREES F AT 54 SECONDS.	19.77 SEC	SHA SONO	¥ 7	ENGINE COMPART	
VEHICLE EFFECT-PREMATURE HICH IM TURN AFFECT BUSTAI	VEHICLE EFFECT-PREMATURE SUSTAINER ENGINE SHUTDOMN: THE FIRE AND EXPLOSION CAUSED DANAGE TO THE PNEUMATICS STRIEM W HICH IN TURN AFFECT SUSTAINER PERFORMANCE BY LACK OF PRESSUME TO THE LUBE OIL RESERVOIR.	Z AND EXPLOSION CAUS	ED DAMAGE SERVOIR.	10 THE	¥E CF	ATICS STRIKE W	
CORRECTIVE ACTION-UNKNOWN							<del></del>
AIRFRANC-A/B BOCSTER SECTION	AOL62-0051/L1-401-00-126	rim1	128D 621111	PALCI-1	5 Q		
FAILURE MODE-OUT OF EXPEC RATURE OF 279 DGF RECORDED	PAILURE MODE-OUT OF EXPECTED TEST VALUE. HIGH ENGINE COMPARTMENT TEMPERATURES STARTING AT TG SECONDS, MAKIMUM TEMPE Rature of eto det recorded at the firek mozzle doom in quad i (Aistt) at approximately 04.5 recorded at	MENT TEMPERATURES     (A1877) AT APPROXI	TARTING A	7 76 SECOM	9.6	MAKINUM TEMPE	
SYSTEM EFFECT-MIGH TEMPERATURE ENVIRONMENT.	ATURE ENVIRONMENT.						

15 JUN 1966

	DIFFICULTIES REVIEW-AIRFRANG SYSTEM-AIRBORNE	IFRAME SYSTEM-AIRBORD	¥			:	
3787EX 308-3737EX	TEST/REPORT NUMBER FAILED COMPOMENT MAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TINE DIF	PRI VENDOR NAME OTH VENDOR PART NO	MANE PART NO	
VEHICLE EFFECT-NONE.							••349•
CORRECTIVE ACTION-MONE.	·						
AIRFRAME-A/B BOOSTER SECTION	AC-62-0040/32-604-87-75 HEATSHIELD	CAPTIVE	75F 621107	<b>2</b> 0	22		710011
FAILURE MODE-STRUCTUR CKET AND RESULTED IN D	FAILURE MODE-STRUCTURAL-A MAJCR PRESSURE PULSE OCCURRED AT EMGINE START MAEN UTILIZING THE OSTF-1 TYPE DRY FLAME BU KET AND RESULTED IN DAMAGE TO THE HEAT SHIELD AND BUPPORT MEMBERS.	T ENGINE START WHEN INCHES	UTILIZING T	HE OBTF-1	TVPE DRY F	LAME BU	
SYSTEM EFFECT-LOSS OF	STRUCTURAL INTEGRITY.						
WEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-THE	CORRECTIVE ACTION-THE FIRE SHIELD WAS MODIFIED PER ECP 1962 AND 8096 WHICH REMORKED THE SHIELD TO WITHSTAND 5 PSI	62 AND BOSS WHICH RE	JORKED THE	BHIELD TO	WITHSTAND	5 <b>F3</b> i.	
AIPFRAME-A/B BOOSTER SECTION	AOU 62-0070/A1-401-00-159	Яцит	1390	70	YES		0000
FAILURE MOE-OUT OF EXPECTED TEST DEGREES F. MAXIMM TEMPERATURE BY AS HIGH TIME LAG SO THAT INDICATED	FAILUME HODE-OUT OF EXPECTED TEST VALUE, INSTRUMENTATION INDICATED ENGINE COMPARTMENT TEMPERATURES IN EXCESS OF 18D Degrees F. Maximum temperature by Measurement P14T has bed degrees F at 117 seconds. This temperature measurement m Is high time Lag so that indicated temps were probably lower fhan actual at any given time after 70 ugconds.	INDICATED ENGINE COM O DEGREES F AT 117 S ER THAN ACTUAL AT AN	PARTMENT TE ECOMOS. THI Y GIVEN TIM	MPERATURE S TEMPERA E AFTER A	S IN EXCESS TURE HEABUR D HECONDS.	OF 180 EMENT H	
SYSTEM EFFECT-MIGH TE	SYSTEM EFFECT-MIGH TEMPERATURS ENVIRCAMENT, NO DETRIMENTAL EPFECTS CROENVED. BMECIFIC AREA OF MOT 648 ENTRANCE TO MIN. COMPARTMENT UNDETERNINGS.	L E TECTA CABERVED.	BPECIFIC AR	EA Q HO!	6AB ENTRAN	KE 10 E	
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-UNKNOWN.	HOLFI.						
¥	A-90-02-D28 NACELLE DOOR BPRING	FAR 7-70848	2150 621017	ETR	YES FRANK P	FRANK HOLLISTE	****
FAILURE MODE-STRUCTUR OF AN INADEQUATE ASSET T NO PORTION CAN BE HE	FAILURE MODE-STRUCTURAL-FOUR SPRINGS WERE STRETCHED SEYOND THEIR PROPORTIONAL LIMIT AT ASSEMELY APPARENTLY SECAUSE OF AM IMADEGLATE ASSEMBLY METHOD IN THE FIELD, SPRINGS MUST BE STRETCHED 24.3 INCHES MHEM MACELLE DOORS ARE OPEN. B T NO PORTION CAN BE HELD COMPRESSED BY THE ASSEMBLERS HANDS.	D THEIR PROPORTIONAL T BE BIRETCHED 24.3	LINIT AT A INCHES WHEN	אכנרונ אינורנ	PPARENTLY B	BECAUSE OPEN. BU	
CORRECTIVE ACTION-CON FOR ASSEMBLY AID, SLY ENTAL EFFECTS TO THE S	CORECTIVE ACTION-CONTINED, RAE A-98-02-3803 REQUESTED THAT SPRING BE REPLACED WITH ONE HAVING AN AUXILLIARY LOOP For assembly ato, sly hissiles will use a double spring arrangement which can be installed easier and without detrin Ental eppects to the spring, eppectivity to be 11/2/83,	HAT BPRING BE REPLAC RANGEMENT WHICH CAN	ED WITH OME BE INSTALLE	HAVING /	IN AUXILLIA! AND WITHOU!	T LOOP P DETRIN	
				,		PAGE DORO	

15 JUN 1966

きせのド ピコウ めい	DIFFICULTIES REVIEW-AIRFRANE SYSTEM-AIRBORNE	RAHE SYSTEM-AIRBORN	₩.			
NATURE SUBSECTION OF SUBSECTIO	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE BITE DATE DATE DATE DATE DIF	IF OTH	VENDOR HAME VENDOR PART HO	
AIRFRAME-A/B BOOSTER SECTION	A-9D-02-026C INSULATION BLANKET-HEAT SHIELD	24-Y-4-00000	420919	7EB 100	YES THOMPSON-FIRES	105644
FAILURE MODE-STRUCTURAL-	UCTURAL-FOUR BLANKETS FOUND SATURATED WITH MATER, PARTS WERE NOT ANALIZED.	WIER. PARTS WERE H	OT ANALIZED.			
CORFECTIVE ACTION-NONE-NO	CORFECTIVE ACTION-NONE-NO FAILURE ANALYSIS WAS PERFORMED. THE INSULATION BLAMKETS WERE DRIED AND REINSTALLED. FAILU E ANALYSIS WAS CANCELLED.	HE INSULATION BLANK	ET& WERE DRIED /	<b>8</b>	MSTALLED. FAILU	· · · · · · · · · · · · · · · · · · ·
AIRFRAHE-A/B BOOSTER SECTION	AOJ62-0007/P1-601-00-P	FLIGHT	7F 11 020813 50	YE 8		001543
FAILURE MODE-OUT OF SPECIFICATION OR TOLE IN THE ENGINE COMPARTMENT REACHED AND EXCEION WAS HOUNTED NEAR THE SUSTAINER ENGINE.	FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE. DURING THE AERODYNAMIC MEATING PERIOD (30 TO 80 SEC.) TEMPERATURES In the engine compartment reached and exceeded 200 deg Famenheit, which was the calibration limit. The instrumentation was hounted near the sustainer engine.	AERODYNAMIC MEATING THEIT, WHICH MAS TH	FERIOD (SO TO (	0 SEC. MJT. T	) TEMPERATURES HE INSTRUMENTAT	
SYSTEH EFFECT-HIGH TEMPI	GH TEMPERATURE ENVIRONMENT.					
VEHICLE EFFECT-NOME.						
CORRECTIVE ACTION-NOME.						
AIRFRANE-A/B BOOSTER SECTION	AE62-0730/82-404-00-87	Ръзсит	670 8~2 620609	YES		005849
FAILURE MODE-OUT OF EXPE ING THIS FLIGHT, IT IS BE D ON A HYDRAULIC BYSTEN /	OF EXPECTED TEST VALUE. ALTHOUGH NO ENGINE COHPARTHENT TEMPERATURE MEASUREMENTS WERE INSTALLED DUR IT IS BELFEYED THAT EXCESSIVE TEMPERATURES PREVALLED DURING BOOSTER PHASE. THIS CONCLUSION MAS BASE BYSTEM ANOMALY DURING THIS PERIOD AND SIMILAR DATA OBTAINED ON 4ED.	COMPARTMENT TEMPER PREVALLED DURING BG AR DATA OBTAINED ON	ATURE MEASUREHEN OSTER PHASE, THE	TS VER	E THSTALLED DUR LUSTON MAS BASE	
SYSTEM EFFECT-HIGH TENPE	GH TENFERATURE ENVIRCHMENT.					
VEHICLE EFFECT-IMPROPER A CHARGE LING, AS A RESUL HERE MOT EFFECTED.	VEHICLE EFFECT-IMPROFER IRAJECTORY, IT IS BELIEVED THAT THE HIGH TEMPERATURE ENVIRONMENT CAUSED A RUFTURE OF THE VS Charge Line, as a resulf, no hydraulic pressure has available during vernien aclo phase, and pinal yan corrections Here not effected.	HIGH TEMPERATURE &	NYTRONHENT CAUSE ACCO PNASE, AND	PINAL PINAL	PTURE OF THE VA	~
CORRECTIVE ACTION-NOME.						
AIRTRAHE-A/B BOOSTER BECTION	A-99-02-016-F CATCH ABSEMBLY, MACELLE DOOR LATCH 7-78255-11	**************************************	# 50D	A C		
FAILURE MODE-STRUCTURAL- EEL CASTING MITH YERT LON	FAILURE HODE-STRUCTUMAL-LATCH CATCH ENGABERENT BURFACES WERE FOUND CHIPPED, MATERIAL IN THE CATCH IS EL CASTINE WITH YEAT LOW TOUGHMESS: THUS BUSCEPTIBLE TO EMBRITLEMENT FAILURE UNDER IMPACT LOADING.	E POUND CHIPPED. MA	TERIAL IN THE CA	7C# 18	A STAIM ESS ST	

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### GENERAL DYNALICS CONVAIR DIVISION

DIFFICULTIES REVIEW-AIRFRANE SYBIEM-AIRBORNE

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VEHICLE SITE PRI VENDOR NAME.	(TEBTS RECYCL		INITY OF SUST	CESS OF 150 D				SERIES STAIM	18. (TESTS PRC		INDICATED AT SECONDS, APPA URE CONDITION	SECONDS AND C
SITE PRI	HATERIAL.	576-E YES	E8 F 1H VIC	PUMP IN ES			YES	Н 18 А 400 ОАВІМС.	AL TOUGHNES	2 T &	MIELD WAS PRENT AT 81 HTIAL PRESS	PLAT AT BE
VEHICLE DATE DIF TI	TOUGHNEBS OF	15F 576- 620801 115	)ED 150 DECRE	NER HYDRAULIC F 110 DEGREES			1130	L OF THE LATE	CREASE MATERI	1200 1-1 620716 12	THE AFT HEAT WGINE COMPARI WGING DIFFERE	ON PETST AND LES AT APPRO- DOOR.
DIF DATA SCURCE PART NUMBER	REDUCED TO INCREASE	FLICHT	T TEH'YERATURE EXCEE!	ASUREMENT AT SUSTAII L, HAD PEAR VALUE OI			FAR 27-78336-9	ND CHIPPED. MATERIAL TO BRITTLE FAILURE !	6 MAS REDUCED TO IM DATA NOT AFFLICABLI	Putent	THE HEATER DOOR ON 'RELEASED INTO THE EI	RE RISES WENE NOTED REX DOOR THERNOCOUPHEAT SHIELD HEATER
TEST/REPORT NUMBER FAILED COMPONENT NAME	-1. AS OF HOW 1, 1982, HEAT TREATING WAS REDUCED TO INCREASE TOUGHNESS OF MATERIAL. (TESTS RECYCLE CHIPPING). E. DATA MADE AVAILABLE FOR APPLICABLE OPERATIONAL TECHNICAL ORDERS.	AE62-0726/E1-607-00-15	OF EXPECTED TEST VALUE. ENZINE COMPARTMENT TEM ERATURE EXCEEDED 150 DEGREES F IN VICINITY OF SUSTA P at 115 seconds.	SYSTEM EFFECT-MICH TEMPERATURE ENVIROMENT. TEMPERATURE MEASUREMENT AT SUSTAINER HYDRAULIC PUMP IN EXCESS OF 150 DE Rees, omly other measurement, at guad 1-11 instrument pamel, had pear value of 110 degrees f.		ź	HG-99-02-017-F LATCH ASSEMBLY, MICELLE DOORS	FAILURE MODE-STRUCTURAL-LATCH ENGAGENENT SURFACES NERE FOUND CHIPPED. MATERIAL OF THE LATCH IS A 400 SERIES STAINLE IS STEEL CASTING WITH LOW TOUGHNESS PROPERTIES SUSCEPTIBLE TO BRITTLE FAILURE WITH IMPACT LOADING.	CORRECTIVE ACTION-(1.) AS OF NOV 1, 1962, THE HEAT TREATING WAS REDUCED TO INCREASE MATERIAL TOUGHNESS. (TESTS PROD NEED LATCHES RECYCLED ES TIMES WITHOUT CHIPPING). (2.) THIS DATA NOT APPLICABLE FOR CPERATION TECHNICAL ONDERS.	AE82-0702/L1-401-00-120 MEAT SHIELD-DOOR	FAILURE MODE-LEAK EXTERMAL. A HOT GAS LEAK CRIGIMATING AT THE HEATER DOOR ON THE AFT HEAT SHIELD WAS INDICATED AT 3 2 SECONDS. LEAKAGE INCREASED AT 70 SECONDS AHD HOT GAS WAS RELEASED INTO THE ENGINE COMPATIMENT AT 81 SECONDS. APPAR ENTLY LEAKAGE WAS DUE TO A VARYING WARPAGE OF THE HEATER DOOR COMPLED WITH CHANGING DIFFERENTIAL PRESSURE CONDITIONS ACROSS THE HEAT SHIELD.	BYSTEM EFFECT-HIGH TEMPERATURE ENVIRONMENT-RAPID TEMPERATURE RISES WERE NOTED ON POTST AND PLAT AT BI SECONDS AND C ORRESPONDING INCREASES WERE NOTED ON THE HEATER DOOR AND FIREX DOOR THERMOCOAPLES AT APPROXIMATELY THE SAME TIME. MA KIMUM TEMPERATURE NOTED WAS 542 DEG F AT 98 SECONDS ON THE MEAT SMIELD HEATER DOOR.
3731EH 8UD-373TEH	CORRECTIVE ACTION-1, AS O	AIRFRANE-A/B BOOSTER SECTION	FAILURE HODE-OUT OF EXPEC THER HYDRAULIC PUMP AT 11:	SYSTEM EFFECT-HIGH TEMPER	VEHICLE EFFECT-NONE.	CORRECTIVE ACTION-JAKNOWA.	AIRFRAME-A/B BOOSTER SECTION	FAILURE MOE-STRUCTURAL-USS STEEL CASTING WITH LOW	CORRECTIVE ACTION- (1.) A: UCED LATCHES RECYCLED 29	AIRFRAME-A/B BOOSTER SECTION	FAILURE MODE-LEAK EKTERNA Z SECONDS. LEAKAGE INCREAS ENTLY LEAKAGE WAS DUE TO A ACROSS THE HEAT SHIELD.	BYSTEM EFFECT-NIGH TEMPES ORRESPONDING INCREASES WER XIMUM TEMPERATURE NOTED NA

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CORRECTIVE ACTION-UNKNOWN. VEHICLE EFFECT-NOME.

15 JUN 1948

		DIFFICULTIES REVIEW-AIRFRAME SYSTEM-AIRBORNE	RAME SYSTEM-AIRBORN	ist.					
	SYSTEM BUG-SYSTEM	TEST/REPORT NUMBER FAILED COMPCAENT NAME	DIF DATA SOURCE PART HUMBER	VEHICLE DATE DIF	SITE PRI TIME DIF OTH		VENDOR NAME VENDOR PART NO	Q	
	AIRFRANG-A/S BOOSTER SECTION	AEAE-089E/01-501-00-67 Heatshield	FLIGHT	67E 620713	F-1 52	7 E		*	
	FAILURE MODE-STRUCTURAL.	FAILURE MODE-STRUCTURAL, THREE TEARS WERE SEEN IN THE HEATSHIELD OUTER FACING NEAREST THE SUSTAINER ENGINE. THE TEARS AT SAIN SAIN SAIN SAIN SAIN SAIN SAIN SAIN	HIELD OUTER FACING OF THE BOOSTER ENGI	NEAREST TH NES.	E 8U87AE	NER E	NGINE. THE TE	<u>.</u>	
	SYSTEM EFFECT-NONE.								
	VEHICLE EFFECT-NONE.								
	CORRECTIVE ACTION-THE N	ON-THE NUMBER OF FASTEHING RIVETS IN THE HEATSHIELD HAVE BEEN INTREASED.	ITSHIELD HAVE BEEN I	WCREASED.					
	AIRFRANE-A/B BOOSTER SECTION	A-90-02-018-F LATCH ASSEMBLY-NACELLE DOOR	FAR 27-76336-9	124D 620620	A TA	YES ON	·	8	308 8 8 9
	FAILURE MODE-STRUCTURAL- L CASTING WITH LOW TOUGHE RED ON 6/20/62, OME FACH	RUCTURAL-LATCH ENGAGEMENT SURFACES WERE FOUND CHIPPED. LATCH MATERIAL IS A 400 SERIES STAINLESS STEE OM TOUGHESS PROPERTIES SUSCEPTIBLE TO BRITTLE FAILURE WITH IMPACT LOADING. TWO TYPICAL FAILURES OCCU OME FACH ON 1200 AMD 1100 AT WIR AND OWE OTHER OCCURED ON 7/16/62 ON 1310 AT THE FACTORY.	ID CHIPPED, LATCH MA E FAILURE WITH IMPA HER OCCURED ON 77567	TERIAL 13 CT LOADING 62 ON 131D	A 400 SE	RIES PICAL FACTO	STAINLESS STEE FAILURES OCCU RY.	H S	
	CORECTIVE ACTION-(1.) A UCED LATCHES THAT MERE RE IECHNICAL CRDERS.	CORECTIVE ACTION-(1.) AS OF NOV 1, 1962, THE HEAT TREATING WAS REDUCED TO INCREASE MATERIAL TOUGHNESS. (TESTS PROD UCED LATCHES THAT MERE RECYCLED 25 TIMES WITHOUT CHIPPING). (2.) DATA WAS MADE AVAILABLE FOR APPLICABLE OPERATIONAL IECHNICAL CADERS.	'MAS REDUCED TO INCREASE MATERIAL TOUGHNESS. (TESTS PRO (g.) data mas made available for applicable operational	REASE HATE AVAILABLE	RIAL TOUR	CABL	S. (TESTS PRO	8.	
	AIRFRAME-A/B BOOSTER SECTION	AC62-0421/P6-403-00-F1 NACELLE DOOR	A.164T	1040 620508	36A	5 č		:	
	FAILURE HODE-FAIL TO OPE HOT KICHMI.	IL TO OPERATE AT PRESCRIBED TIME, THE QUAD 4 NACELLE DOOR FAILED TO CLOSE COMPLETELY. THE REASON IS	MACELLE DOOR FAILE	3 TO CLOSE	COMPLETI		THE REASON IS		
	SYSTEM EFFECT-OPERATION STOPS PREMATURELY.	STOPS PREMATURELY.					*	· · ·	
	VEHICLE EFFECT-NONE.								
	CORRECTIVE ACTION-UNKNOWN.								
-	AIRFRAME-A/B BOOSTER SECTION	AE61-1276/L1-401-00-118	FLIGHT	116D 620426	PALC-1 123	ž &			
	FAILURE MODE-ABOVE EXPEC PARTHENT (P871 BUAD IV). 400 DECREES F.	FAILURE MODE-ABOVE EXPECTED VALUE. ABMORMALLY HIGH AMBIENT TEMPERATURE OF SIG DEGREES F WAS INDICATED IN ENGINE COM Varthent (Porit Buad IV). Due to response characteristic of instrumentation, the temperature was believed to de over 400 degrees f.	TEMPERATURE OF SIG I	SEGREES F TEMPERAT	MAS THOSE	24.159 31.15	IN ENGINE CO	¥.5	
	SYSTEM EFFECT-MICH TEMPE. ESHIELD FLAPPER DOORS.	SYSTEM EFFECT-MICH TEMPERATURE ENVIRONMENT. HIGM TEMPERATURE MAS PRODUCED LOCALLY MEAR QUAD IV A PRAME MEAR THE FIR Shield plapper doors.	E MAS PRODUCED LOCAL	LY HEAR &	A VI OAU	TAR.	E NEAR THE FI	<b>«</b>	
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15 JUN 1966

9961 NOT S1	DIFFICULTIES REVIEW-A	DIFFICULTIES REVIEW-AIRFRAME SYSTEN-AIRDORME	¥			_
TYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE SIT	FR OTH	VEHICLE SITE PRI VENDOR PART NO	
VEHICLE EFFECT-NONE.			·			******
CORRECTIVE ACTION-UNKNOWN.	ž					
AIRFRAME-A/B BOOSTER SECTION	AE62-0076/01-504-00-66	FLIGHT	66E 067F-1	22	·	****
FAILURE MOSE-FAIL TO OPERATE AT PRESCRIBED 1 SURE AS A RESULT OF THE THRUST SECTION FIRE.	TO OPERATE AT PRESCRIBED TIME, THE BOOSTER SECTION DID NOT JETTISON DUE TO LOSS OF PNEUMATIC PRES THE THRUST SECTION FIRE,	SATER SECTION DID NOT	JETTIBON DUE TO	8	PHEUMATIC PRES	
SYSTEM EFFECT-OPERATION DOES NOT START.	DOES NOT START.					
VEHICLE EFFECT-IMPROPER TRAJECTORY.	TRAJECTORY.					
CORRECTIVE ACTION-NOME.					:	
AIRFRANE-A/B BOOSTER SECTION	AE62-0076/01-504-00-66	กเลา	66E 041F-1 620228 5	22		2772
FAILURE MCCE-FAIL DURING INTERNATION OF THE MISE-OFF DISCONTY APPEARED TO DIMINISH SYSTEM EFFECT-HIGH TEMP	FAILURE MODE-FAIL DUBING OPERATION, FIRE CETECTED AFYER LIFTOFF AT THE MISSILE BASE DETWEEN QUANDRANTS I AND II. THE VIEW COTAINED CLEARLY ON CAMERA ITEM 1.12 CMLY. THE FIRE APPEARED FUEL AND CENTERED IN THE AREA OF FUEL AND RAIN LIME RISE-OFF DISCOMECT IN QUAD I. THE FIRE WAS TUMBULENT AND AT TIMES SPREAD TOWNRO BI AND BE EMGINES. INTEMS IIT APPEARED TO DIMINISH GRADUALLY, PLAMES COULD BE GBSERVED UNTIL 40-50 SECS. OF FLIGHT.  SYSTEM EFFECT-HIGH TEMP ENVIRONMENT-CAUSED FAILURE OF BOOSTER TO JETTISON DUE TO LOSS OF PMEUMATIC PRESSURE.	LIFTOFF AT THE MISSILL RE APPEARED FUEL RICH ROLLENT AND AT TIMES SI VED UNTIL 40-50 SECS.	E BASE BETWEEN 9 AND CENTERED IN PREAD TOWARD BL OF FLIGHT. TO LOSE OF PMEU	UANDEAN THE ARE AND BZ	ITS 1 AND 11. TH CA OF FUEL AND D EMGINES. INTENS	
VEHICLE EFFECT-LOSS OF V IN LOSS OF PNEUMATIC CONT ER SECTION.	VEHICLE EFFECT-LOSS OF VEHICLE INTEGRITY AND SUBSESCENT SELF DESTRUCT AT APPROXIMATELY 295 SECS. THE FIRE RESULTED IN LOSS OF PHEUMATIC CONTROL PRESSURE WHICH IN TURN CAUSED VERHIER ENGINE BHUTDOWN AND PAILURE TO JETTIBON THE BOOST ER SECTION.	SELF DESTRUCT AT APPRID VERNIER ENGINE BHUTI	OXIMATELY 205 SE DOWN AND PAILURE	10 JE	E FIRE RESULTED ITION THE BOOST	
CORRECTIVE ACTION-NOME.						
AIRFRANE-A/B BOOSTER SECTION	AE62-0193/BE-40E-00-137 MACELLE DOOM, 81 81MD 1	P.1647	1370 DE 620216 O	ž đ		***************************************
FAILURE MODE-FAIL DURING OFERATION. THE S OBSER.ED ON SEVERAL LAUNCH FILM ITEMS.	DURING OFERATION. THE BI SIDE MACELLE DOOR IN QUAD I REMAINSD OPEN APPROXIMATELY E TO B INCHES, A TALL LAUNCH FILM ITEMS.	DOOR IN QUAD I REMAIN	ED OPEN APPROXIM	ATELY 1	P TO B INCHES. A	
SYSTEM EFFECT-NONE.						
WEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-NOME.						
					A400 9084	<del> </del>

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13 JUN 1966

	DIFFICULTIES REVIEW-AIRFRAME SYSTEM-AIRBORNE	FRAME SYSTEM-ALRECKY					,
 WYSTEX BUD-BYSTEX	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE CATE DIF	817E 71ME DIF	# # E	VENDOR NAME	
 AIRFRAME.A/B BOOSTER SECTION	AEGE-0075/83-401-00-13E NACELLE DOOR, QUAD S	FLIGHT	1320		1 Q	209	****
FAILURE MODE-FAIL TO OP 1110H DURING THE SHORT TO LATER IN FLIGHT.	FAILURE HODE-FAIL TO OPERATE AT PRESCRIBED TIME. THE QUAD 111 NACELLE DOOR WAS NOT SEEN TO LEAVE THE FULLY OPEN POS 1110N DURING THE SHORT TIME IT WAS IN THE FIELD OF VIEW OF THE CAMERA (ABOUT 15 FEET OF RISK). DOOR COULD HAVE CLOSE D LATER IN FLIGHT.	III NACELLE DOOR WAS THE CAMERA (ABOUT 15	HOT SEEN FEET OF	TO LEAVE RIAN), DO	# #2 C0	ULLY OPEN POS-	
 SYSTEM EFFECT-NOME.							
 VEHICLE EFFECT-NONE. NO	VEHICLE EFFECT-NOME, NO EFFECT SUCH AS COMPOMENT MALFUNCTION OR HIGH TEMPERATURES WERE INDICATED.	ON OR HIGH TEMPERATU	RES WERE	IND I CAYED			
CORRECTIVE ACTION-NONE.							
 AIRFRAHE-A/B BOOSTER SECTION	AE61-1273/LE-401-00-114 NACELLE DOOR	PLIGHT	114P 611222	***	4 G	6D CONVAIR	046370
FAILURE MODE-FAILED TO NG AS VISIBLE ON TRACKIN	FAILURE MODE-FAILED TO OPERATE AT PRESCRIBED TIME, BI (QUAD IV) MACELLE DOOR OBGERVED TO BOUNCE AND HOT CLOSE AS LO NG AS VISIBLE ON TRACKING FILM, BINILAR PROBLEM ON 1060.	B TV) NACELLE BOOR O	BBERYED TO	BOUNCE	Ž Q	T CLOSE AS LO	
SYSTEM EFFECT-MICH TEMP AND COSERVED MISM EMGINE	SYSTEM EFFECT-HIGH TEMPERATURE ENVIRONMENT, ALTHOUGH MO CORRELATION HAS BEEN ESTABLISHED BETWEEN OPEN MACELLE DOOR AND CBSERVED HIGH ENGINE COMPARTMENT TEMPERATURES, THIS REMAINS AS POSSIBLE CONTRIBUTARY CAUSE TO THE DISCREPANCY.	RRELATION HAS BEEN E AINS AS POSSIBLE CON	STABLISHET TREBUTARY	DETWEEN CAUSE TO	PATE A	NACELLE DOOR	an apprehiments
VEHICLE EFFECT-NOWE COSERVED.	ER VED.						
 CORRECTIVE ACTION-UNKNOWN							
 AIRFRAME-A/B BOOSTER SECTION	AE61-1273/LE-401-00-114 ENGINE COMPARTHENT	PLIGHT	1140	7.2	¥ 0	GD COMMAIN	123
 PATEURE MODE-OUT OF THE	THECTED TEST VALUE. ENGINE COMPARTMENT TEMPERATURES INDICATED ABNORMAL RISES THROUGHOUT SODSTE	T TEMPERATURES INDIC	ATED ABNO	THAL RIBE	1	MEHOUT RODETE	
 SYSTEM EFFECT-HIGH TEMPERATURE ENVIRONMENT.	ERATURE ENVIRONMENT.						
 VEHICLE EFFECT-NONE, NO	VEHICLE EFFECT-NOME, NO DETRINENTAL EFFECTS ON WEMICLE OR MISSION MERE INDICATED.	HISSION WERE INDICAT	ė				
CORRECTIVE ACTION-REVIS	CH-REVISION OF ENGINE COMPARTMENT INSTRUMENTATION TO OBTAIN BETTER DATA.	TATION TO OBTAIN BET	TER DATA.				
 AIRFRANG-A/B BOOSTER SECTION	AE81-1106/BE-403-00-53 NACELLE DOOR GUAD 1	FLIGHT	53D 611129	<b>2</b> 0	<b>2</b> 9		
FAILUME MODE-OUT OF TOLI	FAILUME MOSE-OUT OF TOLERANCE. FILM DATA INDICATED AN APPARENT BINDING CONDITION AT THE FOMIND END OF THE GUAD 1 NA CELLE DOCA MICH ALLOMED THE DOOR TO REMAIN OPEN APPROXIMATELY 8 INCHES AT LIFTOFF.	RENT BINDING CONDITI	ON AT THE	POMARD E	8	THE GUAD & NA	

BYRTEM EFFECT-MOME.

9001 NOT 91

1130 FTR  1130 FTR  1130 FTR  1130 FTR  1130 FTR  1130 FTR  1131 FTR  1131 FTR  1132 FTR  1330 FTR  134115  134115  134115  134115  134115  134115  134115  134115  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  134116  13	TITE TO THE TOTAL T	LATCHING BYBTEM.  RT BRACLET, BTA 1225 7-70223  DUE TO FATIGUE, TRANSPORTATI WATERIAL WAS LOW IN MAGNESSIUM STALLED BRACKETS FOR CRACKS A ETTER CONTROL REGARDING TRACI ES TO ELIMINATE STRESSES, GOPE FECTION BEFORE AND AFTER COMP OPECTION BEFORE AND AFTER COMP OPECTION BEFORE AND AFTER COMP OPENINE COMPARTHENT TEMPERATI SECONDS. THE ENGINE COMPARTM SECONDS. THE ENGINE COMPARTM SECONDS. THE ENGINE COMPARTM SENCINE COMPARTMENT.  WENT.  WENT.	13-7 6 1104 VIBRATION A 1104 VIBRATION A 1106 STOCK USED 13.4 FIXTURES A 13.4 FIXTURES A 14.0	1350 E1 1316 1316 1316 1316 1316 141 1516 1516 1516 1516 1516 1516 151	CAUSED CAUSED CAUSED NGED BRA BLE DURI E Y TAOT AT HIGH TEN	THE PATIGUE AND A THE PATIGUE AND A THE PATIGUE AND A ACKET MATERIAL 10 ING FAIRING REMOVA TES THE FOLL STAGING HEFFER THE FUEL STAGING HEFFER	-FORTHO -FORTHO -FORTHO -FORTHO -FORTHO -FORTHO -FORTHO -FORTHO 	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
SHORTH STATE OF THE COMPANY OF THE STATE OF	A NO THE	TATE BRACLET, BTA 1885 7-70223  DUE TO FATIGUE, TRANSPORTATI AATERIAL WAS LOW IN MAGNESIUM STALLED BRACKETS FOR CRACKS A STALLED BRACKETS FOR CANCES IN BEST TO ELIMINATE STRESSES, IN BEST TO ELIMINATE STRESSES, IN BEST TO ENGINE COMPART S SECONDS, THE ENGINE COMPART S SECONDS, THE ENGINE COMPART ENGINE COMPARTHENT, WENT, WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WENT,  WE	AND RECAKS. (2 ING STOCK USED INTERIAL TESTS.  THENT WAS SUBJECT INTERIAL TESTS I	1350 E1 13116 13116 13PARENTL1 14.1 CM 10E AVAILL 13021 68 13021 68 13021 68 13021 68 14021 74 1502 10 A	CAUSED CAUSED SHED BET NOCED BRA BLE DURI CATED A YAOT AY HIGH TEM	EB CONVAIR ORTH THE PAISCU CKET MATER MG 7AIRIMG ES ES ES CATAR THE FUCL A THE FUCL A THE FOLL A TH	-FORTIND -FORTIND -FORTIND -FORTIND -FORTIND REMOVA TEMPER TAGING NVIRONM HTME A	
THE STATE OF THE S	THE	DUE TO FATIGUE, TRANSPORTATI ATERIAL MAS LOW IN MAGNESIUM TALLED BRACKETS FOR CRACKS A ETTER CONTROL REGARDING TRACE EST TO ELIMINATE STRESSES. (6 PECTION BEFORE AND AFTER CONTROL E-ENGINE COMPARTHENT TEMPERST E-ENGINE COMPARTHENT TEMPERST E-ECONDS. THE ENGINE COMPART ENGINE COMPARTMENT. WENDAM. IMPEDIATE ACTION INCL DSED AND INSTALLI'S A NEW TYP	TON VIBRATION AN CONTENT.  AND RREAKS. (2.16 STOCK USED IN FESTER FOR INSTRUMEN INSTRUMENT INSTRUME	CPERENTLY  (4.) CM  (6.) CM  (6.) CM  (1021 81  (1021 82  CTED TO A  THE INDUCTION	SHED BET NACED BRAILE DURI I TO THE TEN THE TO THE TEN	THE PATIGOTER CONTROCKET MATER WE TAIRING THE FOLLS THE FOLLS THE FOLLS THE FROOT AIR FRO	TAND A TEMPER TEMPER TAGING NVINCING	\$
ST F ST	A A A A A A A A A A A A A A A A A A A	TALLED BRACKETS FOR CRACKS A ETTER CONTROL REGARDING TRACE ES TO ELIMINATE STRESSES. ( ECTION BEFORE AND AFTER CONT IDE-00-105 FLIGHT  C-ENGINE COMPARTHENT TEMPERATE SECONDS. THE ENGINE COMPART SENTING.  MENT.  SECONDS. THE DIATE ACTION INCL DOED AND INSTALLI'S A NEW TYP	AND REAKS. (2 ING. STOCK USED ING. FIXTURES HOGELTE TESTS.  TOTAL INSTRUMEN RATURE WAS REC. HENT WAS SUBJE ILUDED INCRESS!  TE OF EMGINE DI	1 E378L1 1 (4.) CH 10E AVAIL 11021 8 11021 8 230ED NY 11E INDUCT	BLE DURI BLE DURI BLE DURI E Y Y STAOT AT HIGH TER	CKET MATER MG 7AIRING ES ES THE FUEL S PCRATURE OF AIR PRO	TEMPER TACING HINE A	# # # # #
THE STATE OF THE S	THE THE TICO	FLIGHT  -EHGINE COMPARTHENT TEMPERATE  -ENGINE COMPARTHENT TEMPERATE	TURE INSTRUKEN TATURE WAS RECHENT WAS SUBJECTED IN TESULTED IN TUDED INCRESS!	11021 81 11021 81 747104 1M 020ED 87 J	ICATED A TAGT AT HIGH TEN	ES ES N ABNORMAL THE FUEL S PCRATURE E OT AIR FRO	TEMPER TAGING NVIRCHEN	**************************************
ATTURE HISE BECTHUNG AT APPROXIMATELY BE SECREDS. THE HOTTEST TEMPERATURE INSTRUMENTATION INDICATED AN ABMORMAL TEMPERATURE HAS RECORDED BY ATAUT AT THE FUEL STAGING VALVE HOSTERT AS SECREDS. THE HOTTEST TEMPERATURE WAS RECORDED BY ATAUT AT THE FUEL STAGING WALVE HOSTERTH AS SECREDS. THE FORTH AS SECREDS. THE FORTH AS SECREDS. THE FORTH AS SECREDS BY ATAUT TEMPERATURE BY AT THE FUEL STAGING BY ATAUT TEMPERATURE ENVIRONMENT.  SYSTEM EFFECT-HIGH TEMPERATURE ENVIRONMENT.  VEHICLE STAGING WERE IT LEVELED OFF. CAUSE OF TEMPERATURE HIS INCHORM.	THE WAY	E-ENGINE COMPATHENT TEMPERATE SECONDS, THE ENGINE COMPATH SILE RECENSE MITCH PRODABLY ENGINE COMPATHENT, WITCH PRODABLY ENGINE COMPATHENT, WITCH SELLY, A NEW TYPE SELD AND INSTALLY, A NEW TYPE SELD AND INSTALLY.	HATURE WAS RECHENT WAS SUBJECT IN RESULTED IN RESULTED IN REAST	TATION INC DRDED BY A CTED TO A THE INDUCT	ICATED A 7401 AT HIGH TEN ION OF H	N ABNORMAL THE FUEL S PERATURE E	TEMPER TAGING NVIROSM M THE A	
Y SA F	7 54	KNJAN. IMEDIATE ACTION INC. JOED AND INSTALLINA A NEW TY	LUDED INCREASE					
	<u> </u>	SEL AND INSTALLING A REW IN	The Control of the Co	W THE TE	SION OF	THE SPRING	\$ THAT	
FAILUME WODE-OUT OF EXPELTED TEST VALUE, MEASIN-EMENT ASSST STANTED MISING AT TY SECONDS FROM 104 DEGREES F AT 115 SECOND: WHERE IT LEVELED OFF, CAUSE OF TEMPERATURE HISL IS UNENDAN. STRIEM EFFECT-HIGH TEMPERATURE ENVIRONMENT.				11 31		<b>8</b> 0		
FECT-HIGH TEMPERATURE ENVIRONMENT. PPECT-NONE.	IODE-OUT OF EXPETTED TEST VALUE T 115 SECOND: WHERE IT LEVELE	E. MEASUREMENT ABSOT STARTED 3 OFF. CAUSE OF TEMPERATURE A	AIBL IS UNKNOW	MECONDS FI	104 D	COALES F T	0 178 B	
:PFECT- NONE.	PECT-HIGH TEMPERATURE ENVIRON	ÆNT.						
	WEHICLE EPPECT-NOME.							
COMMECTIVE ACTION-WOME.	E ACTION-NOME.							
						id.	PAGE BORG	

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DIFFICULTIES REVIEW-AIRFRANG STRICK-AIRBORNE

			THE PERSON NAMED IN COLUMN TWO IS NOT THE OWNER.	-
ATOTOTO STATES	TEST/REPORT NUMBER PAILED COMPONENT NAME	DIF DATA BOURCE PART NUMBER	VEHICLE SITE PRI VENDOR NAME DATE DIF TIME DIF OTH VENDOR PART NO	. 2
AIRFRAME-A/B BOOSTER SECTION	AE61-0641/PL-502-00-21	FLIGHT	21K 11 610781 100	993138
FAILURE MODE-OUT OF MEAT SOURCE RELATED T ASUREMENTS INDICATED	FAILURE MODE-OUT OF EXPECTED TEST VALUE-TEMPERATURE MEASUREMENTS IN THE THRUST SECTION INDICATED THE PRESENCE OF A MEAT SOURCE RELATED TO THE SUSTAINER ENGINE SYSTEM. THE LOCATION OF THE HEAT SOURCE COULD NOT BE ESTABLISHED. TWO ME ASUREMENTS INDICATED 142 AND 124 DEGREES F AT BCO AND 180 AND 187 DEGREES F AT SCO.	EMENTS IN THE THRUST ATTON OF THE HEAT SC ND 187 DEGREES F AT	SECTION INDICATED THE PRESENCE OF MACE COULD NOT BE ESTABLISHED. THE SCO.	< ¥
SYSTEM EFFECT-HISM T DETRIMENTAL EFFECTS.	3737EM EFFECT-MISM TEMPENATURE ENVIRONMENT-THE THRUST RECTION TEMPEATURE WENE HIGHER THAN MORNAL BUT THERE WENE NO ETRIMENTAL EFFECTS.	ION TEMPEATURE WERE	HIGHER THAN MORNAL BUT THERE WERE	Q
VEHICLE EFFECT-NOME.				
CORRECTIVE ACTION-MOME.	· ·			
AIRFRANC-A/B BOOSTER SECTION	AE61-0241 P3-502-00-18	PLISHT	16E 13 YES 610524 74 NO	49730
FAILURE MODE-OUT OF E PORTS INDICATED A MIGH #56 DOF, RESPECTIVELY.	OF EXPECTED TEST VALUE, TEMPERATURE MEASURDENTS AGIRT AND PRITT, MOUNTED ON THE JETTISON RAIL SUM High temperature condition starting at 78 seconds, Hakinim Temperatures recorded were 894 Def and Ely.	RDENTS ASSET AND PE SECONDS, MAKINGH TE	1711, MOUNTED ON THE JETTISON RAIL.	<u> </u>
SYSTEM EFFECT-MICH TO BLY CAUSED BY FLOW OF	SYSTEM EFFECT-WICH TEMPERATURE ENVIRONMENT, START OF TEMPERATURE RISK IB COINCIDENT WITH BASE REVERSAL AND IS PROBA LY CAUSED BY FLOM OF EXMAUST 643 INTO THE ENGINE COMPARTMENT.	HATURE RISE IS COING	IDENT WITH BASE REVERSAL AND IS PR	¥ Q
VEHICLE EFFECT-NOME.				
CORRECTIVE ACTION-1,3ME.	₩.			
AIRFRAME-A/B BOOSTER SECTION	AE61-0239/91-502-00-12 BOONTER SECTION	PLIGHT	12E 11 YES 610512 60 NO	******
FATLURE MODE-OUT OF BEGAN TO EXCEED 150	FAILURF, MODE-OUT OF EXPECTED TEST VALUE-AT 60 SECONDS THE AMBIENT TEMPERATURE NEAR THE B2 6A3 GENERATOR IN QUAD III BEGAN TO EXCEED 150 DEGREES F, REACHING A MAXIMUM OF 237 DEGREES F AT BOOSTER CUTOFF.	AMIENT TEMERATURE CARER P AT BOOATER	HEAR THE BE SAD GENERATOR IN BUAD CUTOFF.	=
BYSTEM EFFECT-HIGH TI	BYSTEN EFFECT-HIGH TEMPERATURE ENVINCHMENT-POSSIBLE EXPOSURE OF ENGING COMPARTMENT COMPONENTS TO NIGHER THAN DESINE TEMPERATURES, NO DETRINENTAL EFFECTS OBSERVED IN ANY BYSTEMS.	RE OF EMENE COMPANI EMB.	WENT COMPONENTS TO HIGHER THAN DES	7
VEHICLE EFFECT-NOME.				
CORRECTIVE ACTION-NOME.	***			
AIRFRANC-A/B BOOSTER SECTION	90-00-105-Ed/9590-09 W	PLICHT	\$£ 13 YEB 610284 83 NO	-
FAILINE MODE-OUT OF S BEGAN TO EXCRED 150	OF EXPECTED TEST VALUE, AT 83 SECONDS THE AMBIENT TEMPERATURE MEAR THE BE GAS GENERATOR IN SUAD 21 150 DEGREES F. IT REACHED A MAXIMUM OF 845 DEGREES F AT 10D SECONDS AND DECREASED TO 827 LIGHEES F	AMBIENT TEMPERATURE 8 DEGREES F AT 100 8	MEAR THE BE GAS GENERATOR IN BUMD ECONDS AND DECREASED TO RET LIGHTE	= = =
			PASE DORY	-

18 JUN 1968

	DITTICULIES REVIEW-AINTRAME		į				
1	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA BOURCE PART NUMBER	VEHICLE DATE DIF	817E 11ME 01F	PRI VENDOR OTH VENDOR	VENDOR NAME VENDOR PART NO	
AT BOOSTER CUTOFF.							
BYSTEM (FFECT-HIGH TEMP N PREVIOUS PLIGHTS (SELA	SYSTEM (FFECT-HIGH TEMPERATURE ENVIRONMENT, THE OVER TEMPERATURE HAD NO OBSERVABLE EFFECT ON ANY AIRBORNE IN PREVIOUS YLIGHTS (3E,4E) THE TEMPERATURE INCREASED UNTIL SCO WITHOUT DECATING AS IT DID ON VEHICLE SE.	PERATURE HAD NO OBBER L BCO WITHOUT DECAYIN	VABLE EFFEC 6 A& 17 DID	T ON ANY	AIRBORNE LE BE.	8787EM. 0	
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-NOME.							
AINFRAME-A/B BOOSTER SECTION	AE60-0750/P3-502-00-04 NONE	P.1647	46	2.2	22		:
FAILUME MODE-OUT OF EXP T INCREASE DURING FLIGHT AT DATA TERHINATION (BG	FAILURE WODE-OUT OF EXPECTED TEST VALUE. AMBIENT TEMPERATURE NEAR THE B2 648 SEMERATOR IN BUAD III SMOMED A CONSTAN I INCREASE DURING FLIGHT EXCEEDING 150 DEGREES F AT APPROXIMATELY 36 SECONDS AND REACHING A MAXIMUM OF 204 DEGREES F AT DATA TERHINATION (BOCOSTER CUTOFF).	TURE NEAR THE BE 648 MIMATELY 36 SECONDS A	GENERATOR	N GUAD 1	11 SHOKED JR OF 204	A CONSTAN DEGREES F	
STSTEM EFFECT-MICH TEMPTEMPERSTURE INCREASE NA	SYSTEM EFFECT-HIGH TEMPERATURE ENVIRONMENT. THE OMERTEMP HAD NO OBSERVABLE EFFECT ON ANY ATRACRNE BYSTEM. A SIMILAR Temperature, increase was observed on Vehicle Se.	HAD NO COSERVABLE EF	PECT ON AN	AIRBORN	E SYSTEM.	A BINICAR	
WEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-NOME.	. THIS TEMPERATURE RISE WAS DETERMINED TO BE NORMAL, CONSIDERING THE TRANSDUCER LOCATION.	INED TO BE NORMAL, CO	NSIDERING	INE TRANS	חכנא רסכי	ATION.	
AIRFK NE-A/B BOOSTER SECTION	AC-60-C030/31-511-A7-05 BE THRUST CHAMBER BOOT	CAPTIVE E7-77010-1 E7-77010-8	3E 601125	<b>81/8</b> 1C	7£3 70		
2	URAL- BE BOOT SUSTAINED SIGNIFICANT DAMAGE DURING THE HOT FIRING.	MANAGE DURING THE HOT	FIRING.				
SYSTEM EFFECT-MONE- THE VEHICLE EFFECT-MONE.	THRUST BECTION INSTRUMENTATION DID NOT INDICATE ANY EVIDENCE OF MISH TEMPERATURE.	OT INDICATE ANY EVIDE	MCE OF HIS	1 TEMPERA			
CORRECTIVE ACTION-BOOT WAS IRD.	MAS IRD.						
P. RFRANC-A/B BODSTER SECTION	AC-60-0047/81-310-A6-09 BE THRUST CHAMBER BOOT	CAPTIVE	3E 601117	=	VES 65/C		
FAILURE MODE-STRUCTURAL	URAL- BOOT HES DANAGED DURING ENGING OPERATION. FOUND DURING PORT PIRING INSPECTION.	OPERATION. FOUND BURI	# POST F.	***	ECT10M.		
BYBTEN EFFECT-NONE- NO	NO EVIDENCE OF A HOT BOAT TAIL ENVIRONMENT HAS NOTED IN THE	NORMENT NAS NOTED IN	HE DATA.				
WENTELE EFFECT-NOME.							
CORRECTIVE ACTION-UNENDAM.	į						

15 JUN 1966

DIFFICULTIES REVIEW-FIRFRAME SYSTEM-AIRBORNE

	STREET STREET STREET STREET STREET STREET		•	i			
STOTER BUS-STOTE	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	817E TIME DIF	PRI VENDOR OTH VENDOR	MANE PART NO	
AINFRAME-A/B BOOSTER SECTION	AC-60-0048/32-513-A7-02 BR THAUST CHAMBER BOOT	CAPTIVE £7-77010-1	EE 601118	2	YES		
FAILURE HODE-STRUCTURA	FAILURE MODE-STRUCTURAL- THE BE BOOT INCURRED SIGNIFICANT DANAGE DURING TEST.	DAMAGE BURING TEST.				·····	
SYSTEM EFFECT-NOME.							
VEHICLE EFFECT-HOME.			٠				
CORRECTIVE ACTION-BOOT	T LAS IRD.						
AIRFRANE-A/B BOOSTER SECTION	AE&O-0542/P3-503-00-03	FLIGHT	3E 601110	13	22		111500
FAILURE MODE-OUT OF EY AFTER AFPROXIMATELY & BSERVED AT APPROXIMATEL	FAILURE MODE-OUT OF EXPECTED TEST VALUE-AMBIENT TEMPERATURE NEAR THE BE 648 GENERATOR IN QUADIII INCREASED STEADILY AFTER APPROXIMATELY & SECONDS OF FLIGHT EXCEEDING 150 DEGS F AT APPROXIMATELY SS SECONDS. MAXIMUM TEMPERATURE MAS O BSERVED AT APPROXIMATELY 110 SECONDS (240 DGF) WHEN DATA WENT OFF SCALE HIGH AND WAS NO LONGER CONSIDERED VALID.	IE NEAR THE BE 648 GE I F AT APPROXIMATELY INT OFF SCALE HIGH AN	NERATOR II 55 SECONDI D MAS NO I	I QUADIII I. MAXIMU .CMEER CO	INCREASED STE H TEMPERATURE : HSIDERED VALID	MOTE O	
SYSTEM EFFECT-HIGH TEN	TEMPERATURE ENVIRONMENT-THE OWER TEMP HAD NO CRISENVABLE EFFECT ON AHY AIRBORNE SYSTEM.	IAD NO COSDRYABLE EFF	ECT ON AND	AIRBORN	E SYSTEM.		
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-UNKN	пекнове.						
AIRFRAME-A/B BOOSTER SECTION	AC-60-0045/31-508-A4-05 BE THRUST CHAMBER BOOT	CAPTIVE E7-77010-1	3E 601028	ä	YES HO		***
FAILURE MODE-STRUCTURA	TURAL" BOOT WAS DAMAGED DURING EMBINE OPERATION. FOUND DURING POST FIRING INSPECTION.	ERATION. FOUND DURIN	6 POST FII	1 NG 1 NBP	ECTION.		
SYSTEM EFFECT-NOME- NO EVIDENCE OF	S EVIDENCE OF A HOT BOAT TAIL ENVIRONMENT WAS NOTED IN THE DATA.	MENT WAS NOTED IN TH	C DATA.				
VEHICLE EFFECT-NOME.		,					
CORRECTIVE ACTION-BOOT	T WAS IRD AND REPLACED.						
AIRFRANE-A/B BODSTER SECTION	AE60-0324/P2-401-00-35	COUNTDOM	\$50 \$010 <b>55</b>	1E -E100	22		ı
FAILURE HODE-OUT OF TO MECTION HEATER.	TOLERANCE. THRUST SECTION TEMPERATURES WERE NOT AS EXPECTED DUE TO IMPROPER OPERATION OF THRUST	WERE NOT AS EXPECTE	D DUE 10.1	HPROPER	OPERATION OF TO	18081	
SYSTEM EFFECT-LOW TEMP ON OF THRUST SECTION HE	TEMPERATUME EMVIRONMENT. THRUST SECTION TEMPERATUMES MERE NOT AS EXPECTED DUE TO IMPROPER OPERATI H HEATER.	TEMPERATURES MERE NO	T AS EXPEG	TED DUE	TO IMPROPER OF	E 4 4 1	
VEHICLE EFFECT-COUNTDOMN DELAYED 10 NINU TE AECYCLE DUE TO OTHER VEHICLE PROBLEMB.	VENICLE EFFECT-COUNTDOMN DELAYED 10 MINUTES 10 MINUTE HOLD REQUESTED BUT HOLD WAS EXTENDED 170 MINUTES WITH 39 MINU E RECYCLE DUE TO OTHER VEHICLE PROBLEMS.	REQUESTED BUT HOLD	MAB EXTEN	ED 170 N	INUTES WITH 38	2 2	

	1117	CONVAIR	CONVAIR DIVISION					
		DIFFICULTIES REVIEW-AIRFRAME	IRFRAME SYSTEM-AIRBORNE	¥				
	SYSTEM SLB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA BOUNCE.	VEHICLE DATE DIF	VEHICLE SITE DATE DIF	# 0 # 2	PRE VENDOR NAME OTH VENDOR PART NO	
	CORRECTIVE ACTION-FIRST	T SWITCHED TO RECO UNIT THEN REPAIRED HEATER.	RED HEATER.					
	AIRFRAME-A/B BOOSTER SECTION	AC-60-UG44/31-907-A3-GS BE THRUST CHAMBER BOOT	CAPTIVE	3£ 601080	=	<b>₽</b>	YES 60/C NO	•
	FAILURE MOE-STRUCTURAL BOOT HAD SLIPPED FROM	FAILURE MOE-STRUCTURAL- TWO OUTSIDE SEAM FACINGS AND ABOUT FOUR PEET OF CAMLOCK FLAF WERE TORN BOOT HAD SLIPPED FROM THE RETAINING CABLE. THIS PROBLEM WAS FOUND DURING POST FIRING INSPECTION.		CCK FLAP W	ERE TORN	5	CANLOCK FLAP WERE TORN PROM THE BOOT BODY. POST FIRING INSPECTION.	
	STSTEM EFFECT-NONE- NO EVIDENCE OF	EVIDENCE OF A HOT BOATTAIL ENVIRG	A HOT BOATTAIL ENVIRONMENT WAS INDICATED IN THE DATA.	N THE DATA	•			
	VEHICLE EFFECT-HONE.							
	CORRECTIVE ACTION-BOOT WAS IRD AND REPLACED.	WAS IND AND REPLACED.						
	AIRFRANE-A/B BOOSTER SECTION	AC-60-0041/32-31E-A6-0E B1 THRUST CHAMBER BOOT	CAPTIVE	2E \$01014	×	ž 6	YES 60/C	•
	FAILURE MODE-STRUCTURA	FAILURE MODE-STRUCTURAL- BOOT MAS TORN AND CANLOCKS WERE MISSING.	: M1851MG.					
	SYSTEM EFFECT-NOME. NO	SYSTEM EFFECT-NOME, NO EVIDENCE OF A HOT BOAT TAIL ENVIRONMENT WAS FOUND IN THE DATA.	CONTRAS FOUR IN T	E DATA.				
	VEHICLE EFFECT-NOME.							
	CORRECTIVE ACTION-BOOT WAS REPLACED.	WAS REPLACED.						
	AIRFRANG-A/B BOOSTER SECTION	AE60-0541/P1-40E-01-71 NACELLE DOOR	P.1647	71D 601018	10	20		945
	FAILURE MODE-ERRATIC OF OPENING) OF MICELLE DOO	FAILURE MOCE-ERRATIC OPERATION-INSTRUMENTATION INDICATED BLIGHTLY ERRATIC OPERATION (BLUGGISM CLOSURE AND BLIGHT RE OPENIMS) OF MICELLE DOORS IN QUADRANTS 2 AND 3.	DELIGHTLY ERRATIC OPE	PATION (BL	15 ME 1990	<b>15</b>	E AND BLIGHT RE	
	BYSTEN EFFECT-NOME.							
	VEHICLE EFFECT-NONE.							
-	CORRECTIVE ACTION-NOME.	•						
	AIRFRAMC-A/B BOOSTER SECTION	AEGO-GBSE/83-40E-00-81 LOX TANK SENSE LINE RIBEOFF DISCON NECT BAIELD	FL1641 KON	910	<b>6</b> -0	¥ Q		
1	FAILURE MODE-STRUCTURAL, LOSS OF RADIATION NEUWATIC RISEOFF DISCOMMENT TO RADIANT MEAT.	FAILURE MODE-STRUCTURAL. LOSS OF RADIATION BMIELD IS SELIEVED TO MANE OCCURRED AT LIFTOFF. LOSS OF SMIELD EXPOSED P EUMATIC RISCOFF DISCOMMECT TO RADIANT MEAT.	IEVED TO MANE OCCURRE	D AT LIFTO	77. 1088	8	HIELD EXPOSED P	
	BYBIEN EFFECT-NOW.	-						
								_

19 JUN 1966

5945 WOT 65	DIFFICULTIES REV	DIFFICULTIES REVIEW-AIRFRAME SYSTEM-AIRBORNE	ZHE.				1
SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER	DIF DATA SOURCE FART NUMBER		VEHICLE SITE DATE DATE DATE	# 0 # 2	PRI VENDOR NAME OTH VENDOR PART NO	
VEHICLE EFFECT-LOSS E REGULATOR. AS A RES	VEHICLE EFFECT-LOSS OF VEHICLE INTEGRITY. LOX TANK WAS OVER PRESSURIZED DUE TO FALSE INDICATION TO LOX TANK PRESSUR E REGULATOR. AS A RESULT THE INTERNEDIATE BULNHEAD REVERSED AND THE VEHICLE SELF DESTRUCTED.	WAS OVER PRESSURIZED DUE	TO FALSE IN	DICATION TED.	5	X TAMK PRESSUR	263066
CORRECTIVE ACTION-RE	CORRECTIVE ACTION-REDESIGN RISEOFF DISCONNECT HEAT BHIELDS.	MIELDS.					
AIRFRANG-A/B BOOSTER SECTION	AEAD-0749/11-402-00-57 MACELLE DOOR	FLIGHT	970 601011	PAL\$-1	<b>2</b> 5		• • • • • • • • • • • • • • • • • • • •
FAILURE MOE-FAIL TO F-DOOR WAS GBSERVED T PROX. S INCH OPENING ILE VIBRATION, INTERF	FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME-BE SIDE QUAD III NACELLE DOOR FAILED TO CLOSE PROPERLY AFTER LIFTOF F-DOOR WAS COSERVED TO BE WIDE OPEN UNTIL MISSILE WAS APPROX. 30 FEET FROM LAUMCHER. THE DOOR THEM CLOSED WITH AN AP PROX. S INCH OPENING COSERVED UNTIL 13 SEC. WHEN THE DOOR APPEARED TO SMAP SHUT. CAUSES MANE BEEM ATTRIBUTED TO MISS ILE VIBRATION, INTERFERENCE AND POSSIBLE EXCESSIVE MINGE FRICTION.	SIDE GUAD III MACELLE DO 18 APPROX. 30 FEET FROM L 1 DOOR APPEARED TO SKAP B IINGE FRICTION.	OR FAILED TO NUMCHER. THE HUT. CAUBED	CLOSE PR DOOR THE HAVE BEEN	OPERL Dr CLO	T AFTER LIFTOF SED WITH AN AP SEUTED TO MISS	
SYSTEM EFFECT-NOME.							
VEHICLE EFFECT-NOME.							
CORRECTIVE ACTION-NOME.	¥.						
AIRFRAME-A/B BOOSTER SECTION	AC-60-0037/32-511-A5-02 BE THRUST CHAMBER BOOT	CAPTIVE 27-77013-1	2F. 601006	2	YES	YES 60/C	0000
FAILURE MODE-STRUCTU	FAILURE MODE-STRUCTURAL- BE BOOT INCURRED SIGNIFICANT DANAGE DURING THE TEST.	INT DAMAGE DURING THE TES	Ŀ				
SYSTEH EFFECT-HIGH 1	SYSTEH EFFECT-HIGH TENPERATURE ENVIRONMENT- PERMITTED HOT GAS PLOW INTO BE NACELLE.	TED HOT GAS PLOW INTO BE	WCERLE.				
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-UNKNOWN.	KHOMM.						
AIRFRANE-A/B BOOSTER SECTION	AE60-0835/82-403-00-33 NACELLE DOOR	PLIGHT	330 600828	B-E LIFTOFF	ž 0	YES GO/CONVAIR	••••
FAILURE MODE-FAIL TO MG AS IN VIEW. FILMS E MOTION.	FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME, NACELLE DOCKS ON BI SIDE OBSERVED ON FILM NOT TO HAVE CLOSED AS LO NG AS IN VIEW. FILHS ALSO SHOWED THAT DOCKS ON BE SIDE MENE SLOW IN CLOSING BUT DID SO AFTER ABOUT 18 FEET OF VEHICL E HOTION.	MACELLE DOORS ON BI SIDE CBSERVED ON FILM NOT TO MAVE CLOSED AS LO SIDE MERE SLOW IN CLOSING BUT DID SO AFTER ABOUT 15 FEET OF VEHICL	SSERVED ON P	TLN NOT 1 FTER ABOL	7 18 7 18	E CLOSED AS LO PEET OF VEHICL	
SYSTEM EFFECT-NOME.							
VEHICLE EFFECT-NONE.							*
CORPECTIVE ACTION-UNKNOWN.	KMOMM						

15 JUN 1866

GENERAL DYNAHICS CONVAIR DIVISION

DIFFICULTIES REVIEW-AIRFRAME SYSTEM-AIRBORNE

	SYSTEM \$UD-\$YSTEM	TESTARFORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE SITE PRI	\$17E 11ME DIP		VENDOR HAME VENDOR PART NO	
7 6	AIRFRAME-A/B BOOSTER SECTION	AEGG-0747/P4-402-00-79 FOMARD MACELE DOOR	FLIGHT	780	10	2 d		•• • • • • • • • • • • • • • • • • • • •
	FAILURE MODE-FAIL DURING OPERATH AT LIFTOFF, THE DOOR BOUNCED OPE CHES FOR 20 SECONDS AFTER LAUNCH,	L DURING OPERATION. MOTION PICTURES INDICATED THE BI FOMMED MACELLE DOOR PAILED TO CLOSE COMPLETELY Door Bounced Open 2 to 3 tines after the Pins Nere Pulled and Remained open approximately 2 to 3 in ADS AFTER LAUNCH.	TED THE BI FOLLED AND INS WERE PULLED AND	CELLE DOOR REMAINED O	FAILED PEN APPR	TO CLOSE OXINATEL	COMPLETELY Y 2 TO 3 IN	
	SYSTEM EFFECT-NOME.							······································
	VEHICLE EFFECT-NONE.							
	CORRECTIVE ACTION-UNKNOWN.	O.A.						
78	AIRFRAME-A/B BOOSTER SECTION	A<- 0u-0035/32-510-A4-02 5us7. THRUST CHAMB. BOOT	CAPTIVE 27-77011-1	2E 600919	2	YES 60/C		:
	FAILURE MODE-STRUCTURA ECTION.	TUCTURAL- BOOT WAS DANAGED AND HAD BLIFFED OVER THE CHANBER LUGS. DISCOVERED DURING FOST FIRING INSP	OVER THE CHANBER LUG	S. DISCOVE	RED DURT	76 POST	FIRING INSP	
	SYSTEM EFFECT-HIGH TEN	64 TENFERATURE ENVIRONENT- PERHITTED HOT GAS PLOW INTO THE THRUST SECTION.	GAS FLOW SHTO THE TH	RUST SECTE	÷			
	VEHICLE EFFECT-NONE.							
	CORRECTIVE ACTION-UNKNOWN.	O.A.						
₹ 6	AIRFRAME-A/B BOOSTER SECTION	AE60-0538/P1-402-00-60 EMGINE COMPATMENT	7161	600 60070£	=:	YES GO CONVAIR	CONVAIR	***
<del></del>	FAILURE MODE-OUT OF EX AR VERNIER MYDRALLIC SU INDICATED 217 DEGF AT	FAILURE MOE-OUT OF EXPECTED TEST VALUE. ENGINE COMPARTMENT TEMPERATURE EXCEEDED NORMAL RANGE. HEASUREMENT ATAST NE AR VERNIER MYDRAULIC SUMPLY BUADIV INDICATED 330 DEGF AT 100 SECONDS. P14T ENGINE COMPARTMENT AMBIENT TEMP AT BUAD V INDICATED 217 DEGF AT 98 SECONDS. A747T AND PGTST ALSO READ NICH BUT ARE CONSIGERED BUESTIONABLE.	I TEMPERATURE EXCEED 0 SECONDS. PLAT ENGI D MIGH BUT ARE CONSI	ED NORMAL HE COMPART VERED QUES	RANGE. H HENT AND TIONABLE	EASURENE! JENT TEM	NT ATABT NE P AT BUAD V	
	BYSTEM EFFECT-MIGM TEMPERATURE E GASES AT BASE PRESSURE REVERSAL.	BYSTEM EFFECT-MICH TEMPERATURE ENVIRONGENT IN EMBING COMPARTMENT. CAUSE UNDETERNINED BUT PROBABLY INFLUX OF EMAUST Gases at base pressure reversal.	ATHENT, CAUSE INDETE	AXINED BUT	PROBABL	Y INCLUX	OF EXMAUST	
	VEHICLE EFFECT-NOME.							
	CORRECTIVE ACTION-IMPROVED ENGING BOOTS.	OWED EMEINE BOOTS.						
₹8	AIRFRAME-A/B BOOBTER SECTION	ETR-017/14-512-1L-9E BOOT8-CLAMP	CAPTIVE	600418	I	758 60/0		•
	FAILURE MODE-BTRUCTURAL	UCTURAL. BOOT WAS TORN BURING TEST,			٠			

a memory control	AND AND THE RESERVE OF THE PARTY OF THE PART	DIFFICULTIES REVIEW-AIRFRAME SYSTEM-AIRBOAME	RAME BYSTEM-AIRBORN		Constitution of the second		A SALL TO SERVICE STREET, SALL	1976 (1988) - 1888 (1986) - 1887 (1986)
	BYSTEM SUG-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA BOURCE PART NUMBER	VEHICLE DATE DIF	11 0 1 1 T 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 5 2 5 2 5	VENDOR NAME VENDOR PART NO	
	VEHICLE EFFECT-NONE.							•
	AIRFRAME-A/B BOOSTER SECTION	ETR-015/14-510-1J-SE BE THRUST CHAMBER BOOT CLAMP	CAPTIVE	<b>600328</b>	7-1		3/	******
	FAILURE MODE-FAILURE DUR	FAILURE MODE-FAILURE DURING OPERATION. BOOP CAME UNBWAPPED DURING TEST AS REVEALED DURING POST TEST INSPECTION.	DURING TEST AS REVE.	ALED DURIN	37 T804 3	=	PECTION.	
	VEHICLE EFFECT-NOME.				•	•		
	CORRECTIVE ACTION-REPAIR BOOT.	8001.						
	AIRFRANE-A/B BOOSTER SECTION	ETR-014/14-509-11-SE BE THRUST CHAMBER BOOF	CAPTIVE	<b>6</b> 00326	<b>*</b>	768 40/C	3/6	
	FAILURE MODE-FAILURE DUR!	ILURE DURING OPERATION-BOOT CANE UNSHAPPED DURING TEST.	URING TEST.					
	SYSTEM EFFECT-HIGH TEMPES	CH TEMPERATURE ENVIRONMENT. BE MACELLE TEMPERATURE INDICATED A SLIGHT RISE.	ERATURE INDICATED A	SLIGHT RI	, W			
	VEHICLE EFFECT-NONE,							
	CORRECTIVE ACTION-UNKNOWN.	ż						
	AIRFRANE-A/B BOOSTER SECTION	AE60-0318/02-403-00-25	Plet	E3D 6004EE	0-e 114	# Q		******
	FAILURE MODE-OUT OF EXPEC	FAILURE MODE-OUT OF EXPECTED TEST VALUE. ALTHOUGH THE BOOSTER SECTION THERMAL ENVIRONMENT MAS NOT MONITORED, IT MAS CONCLUDED THAT HIGH TEMPERATURES EXISTED DURING THE BOOSTER STASE.	ER SECTION THERMAL I	CNVIRCHERY	TON SAN	TON TON	OKED, 17 MAS	
-	SYSTEM EFFECT-HIGH TEMPER	CH TEMPERATURE ENVIRONMENT.						
-	VEHICLE EFFECT-LOSS OF VE ER BECTION RESULTED IN A P ARY VEHICLE INSTABILITY.	VEHICLE EFFECT-LOSS OF VEHICLE STABILITY. IT HAS BEEN HYPOTHESIZED THAT A MIGH-TEMPERATURE ENVIRONMENT IN THE BOOST R SECTION RESULTED IN A HYDRAULIC SYSTEM FAILURE WHICH IN TURN RESULTED IN A FLIGHT CONTROL FAILURE, CAUSING TEMPOR RY VEHICLE INSTABILITY.	HEBIZED THAT A MIGH- URN RESULTED IN A FL	TEMPERATUR TENT CONTI	IE ENVIRO	PENT RE. C.	IN THE BOOST USING TEMPOR	
	CORRECTIVE ACTION-NOME.							
	AIRFRANE-A/B BOOSTER SECTION	ETR-011/14-505-F1-8E BOOT	CAPTIVE	817004		2 Q	3/ <b>09</b>	
1	FAILURE MODE-FAILURE BURS	FAILUNE MODE-FAILUNE DURING OPERATION-BOOT BECAME PARTIALLY UNSNAPPED WHICH ALLONED IT TO SLIP ON THE CHANGER.	UNSNAPPED WHICH ALL	OMED 11 TO	BLIF OF	Ĭ	HANGER.	
	STRIKE EFFECT-PERMITTED A	SYSTEM EFFECT-FERMITTED HOT SAS BLONBACK INTO THRUST SECTION.	ż					

DIFFICULTIES REVIEW-AIRFRAME SYSTEM-AIRBORNE

13 JUN 1966

CLE EFFECT-PRENATURE P D.2 SEC) WHEN THE SUS ECTIVE ACTION-EMBINEES						_
IVE ACTION-ENGINEER	VEHICLE EFFECT-PRENATURE PROPULSION CUTOFF-TEST WAS PREMATURELY TERMINATED BY AM CBSERVER AT 7 PLUS 10.45 SEC (BECO Plus D.2 Sec) when the sustainer environmental temperature exceeded redline.	TURELY TERMINATED BY E EXCECCED REDLINE.	AH CBBERVER	AT 7 PLUI	10.43 SEC (BECO	
	CORRECTIVE ACTION-ENGINEERING CHANGE REQUEST ECR WAS WRITTEN REQUESTING A CHANSE IN BOOT MOUNTING.	TEN REQUESTING A CHAN	ISE IN BOOT	IOUNT1 NG.		
ATRFRAME-A/B A BOOSTER SECTION T	AA60-0130/PE-4BN-04-33 THRUST COME MOUNTING FLANGE	COMPOSITE-FRD/DPL	550 1E 6003E9	YES		•••000
E MODE-LEAK-EXTERNAL	FAILURE MODE-LEAR-EXTERNAL. DURING TANKING TEBT, A FUEL LEAK WAS FOUND AT THE MOUNTING FLANGE OF THE APEK THAUST CO E.	EAK WAS FOUND AT THE	HOUNTING FLA	16E OF 1	E APEX THRUST CO	
SYSTEM EFFECT-HOME.						
VEHICLE EFFECT-NOME.						
TIVE ACTION-LEAR COR	CORRECTIVE ACTION-LEAK CORRECTED WHEN TANK WAS OPENED TO REPAIR INSULATION BULKHEAD.	REPAIR INSULATION BUT	.KHEAD.			
AIRFRANE-A/B A BOOSTER SECTION B	AZC-ET-116/P1-405-00-4E BOOSTER ENGINE BOOT CABLES	FLICHT	420 11 600308 76	YES		9-8116
E MONE-FAIL BURING C NI AFTER BASE PRESSU	FAILURE HONE-FAIL DURING CPERATION. SHIFTS OF THE BOOSTER EMGINE BOOTS ALLOWED HOT GASES TO PLOW INTO THE EMGINE CO MPARTMENT AFTER BASE PRESSURE REVENSAL, AT APPROXIMATELY 73 SECONDS.	ENGINE BOOTS ALLONER 3 SECONDS.	HOT 649E8	10 PLOF 19	TO THE EMSINE CO	
EFFECT-HIGH TEMPERA AXIMUM TEMPERATURE R	SYSTEM EFFECT-HIGH TEMPERATURE ENVIRONMENT. ENGINE COMPARTNENT TEMPERATURES BEGA AN ABNORMAL INCREASE AT 76 SECONDS. , THE MAXIMUM TEMPERATURE REACHING THE UPPER BAND LIMIT OF 403 DGF AT 101 SECONDS.	THENT TEMPERATURES BI 403 DGF AT 101 SECON	CA AN ABNORI DS.	INC THERE	SE AT 76 SECONDS	
E EFFECT-LOSS OF VEN O THE VERNIER HYDRAL UNED LOSS OF VERNIER	VEHICLE EFFECT-LOSS OF VEHICLE STABILITY. THE HIGH TEMPERATURES APPARANTLY CAUSED A FAILURE IN THE PREUMATIC CHARGE Line to the Vehnier Hydraulic Accumulator so that charge pressure bled off at about so seconds. The accumulator pai Lune caured loss of Vennier control and Comberuet Loss of Venicle attitude control.	ATURES APPARANTLY CAL PRESSURE BLED OFF AT VEHICLE ATTITUDE COP	JSED A FAILURABOUT SE SEC	E IN THE	PHEUMATIC CHARGE ACCUMULATOR FAI	
TIVE ACTION-A SPECIA	CORRECTIVE ACTION-A SPECIAL BOOT CABLE ATTACHMENT WAS UBED ON SUBSESUENT HISSILES.	D ON BUBSCEUENT MISS	LES.			
AIRFRANG-A/B S BOOSTER SECTION B	52-408-C6-24 BUSTAINER BOOT	CAPTIVE	240 3- 391004 R	9-2 YE	YES 60/C NO	:
E MODE-STRUCTURAL-BU	FAILURE MOE-STRUCTURAL-SUSTAINER BOOT (BEATES & TYPE) WAS BLONN PROK OF THE WENTOLE BONETINE DURING THE FIRING.	IS BLOWN PREE OF THE !	MENICLE BONE	THE DURIN	6 THE FIRING.	
BIBTEM EFFECT-NOME.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-UNKNOWN.	•					

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COHVAIR DIVIBION

SAUGHER STORM STATEM TESTAREOUT NUMBER DIF DATA BOACE WENIGHE STIFE DIF DIFF DIFF DIFF DIFF DIFF DIFF DI	996" Z27 ##	DIFFICULTIES REVIEW-AIRFRAME	IRFRAME SYSTEM-AIRBORNE	·				
AZC-EP-OTA-P3-404-00-17 FILGHT 110 130 13 VES  DUT OF TOLERANCE, SIGNIFICANT TEMPERATURE INCREASES OCCURRED IN THE THRUST SECTION STARTING AT APPROXITIONS. THE GREATEST INCREASE WAS GOSENVED IN GUAD E REACHING STY DEF AT 100 SECONDS.  HIGH TEMPERATURE CHVIROMENT. TEMPERATURES WERE HOT HIGH ENOUGH TO CAUSE DANAGE TO COMPONENTS IN THE THRUST SECONDS.  THOM-HONE.  AZC-EP-OSA-P3-403-D0-14 FILGHT OF 186 DEGREES FROM 80 WHILL IS SECONDS. TEMPERATURE, MEAR FLEE STAGHW VALVE, STARTED SU OUT OF EXPECTED TEST VALUE, GAUDRANT S ENGINE COMPONENTS IN AND A REMAINED BETWEEN 39 AND 110 TOWNERS.  FINANCE.  ENISSE/FA-402-00-10 FRF 100 HIGH ENOUGH TO CAUSE DANAGE TO COMPONENTS IN THE HIGHER TEMPERATURE OF THE WAS GOSEN BY THE HIGH OF ESS ECONDS. THE WOOD HIGH OF EXPECTED TEST VALUE. DURING FILENT READINESS FIRM TOWNERS IN THE EMAINED BETWEEN SOME AND THE THREW TEMPERATURE CONTINGN DURING ON A PHONE TEMPERATURE CONTINGN BY THE WAS GOSEN BY THE WAS GOSEN BY THE WAS GOSEN BY THE WAS GOSEN BY THE HAS GOSEN BY THE WAS GOSEN BY THE WAS GOSEN BY THE WAS GOSEN BY THE HAS GOSEN BY THE WAS GOSEN BY THE WA	37.57EH \$18-37.5TEH	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA BOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PR O	VENDOR HAHE	
OUT OF TOLERANCE, SIGNIFICANT TEMPERATURE HIGHERES OCCURRED IN THE THRUST SECTION STATING AT APPROXISE HOUSE. THE SECRETATION SECRETARY TEMPERATURES WERE NOT HIGH ENOUGH TO CAUSE DANAGE TO COMPONENTS IN THE THRUST SECONDS.	ITERAME-A/B SOOSTER SECTION	AZC-27-078/P3-404-00-17	FLIGHT	170 590916	15	# Q		******
1104-MONE.  AZC-E7-D34/P3-403-00-14  PLICHT 14D 133  YES  AZC-E7-D34/P3-403-00-14  PLICHT 14D 133  YES  SOOSIS 84.5 MO  OUT OF EMPECTED TEST VALUE. AUMORANT 3 ENGINE COMPARY TEMPERATURE, MEAN FUEL STACING VALVE, STANTED SU  A.5 SECONDS. THIS TEMPERATURE EXCEDED UPPER BAND LIMIT OF 188 DEGREES FROM 80 UNTIL 163 SECONDS. TEMPORANT Z WAS LOKEN BUT HIGHERO. TEMPERATURES IN QUADRANTS I AND 4 REMAINED BETWEEN 39 AND  -HIGH TEMPERATURE ENVIRONMENT, TEMPERATURES MERE NOT HIGH ENOUGH TO CAUSE DAMAGE TO COMPONENTS IN THE  T-MONE.  TION-MONE.  ENISSE/F4-402-00-10  FRF 150 SECONDS. THE EMPERATURE CONTROL PREUMATIC  ASCENDILLY TO A MAXIMUM OF EGG DEGREES F AT 31 MECONDS. NO SIGN OF FIRE WAS COSENVED DURING ON AP  -HIGH TEMPERATURE ENVIRONMENT, THE BOOSTER SECTION EXPERIENCED AN OVER TEMPERATURE CONTROL PREUMATIC  F-MONE.  THOM-WOME.  THOM-WOME.  THOM TEMPERATURE ENVIRONMENT, THE BOOSTER SECTION EXPERIENCED AN OVER TEMPERATURE CONDITION DURING ON AP  F-MONE.  THOM-WOME.  THOM-WOME.  THOM-WOME.  THOM-WOME.  THOM-WOME.  THOM THOM TEMPERATURE ENVIRONMENT.  THOM-WOME.  THOM-WOME.  THOM-WOME.  THOM THOM THOM THE SOURCE SECTION EXPERIENCED AN OVER TEMPERATURE CONDITION DURING THOM-WOME.  THOM-WOME.  THOM-WOME.  THOM-WOME.  THOM THOM THOM THOM THOM THOM THOM THOM			NCREASES OCCURRED IN 1 QUAD 2 REACHING SG7 DG	HE THRUST	_	TART	ING AT APPROXI	
THON-MORE.  A2C-E7-D34/P3-403-00-14 FLIGHT 14D 13 YES 500311 44.3 HO  OUT OF EXPECTED TEST VALUE. GUADRANT 3 ENGINE COMPART TEMPERATURE, HEAR FUEL STACING VALUE, STARTED SU 4.3 SECONDS. TRIP SECONDS	SYSTEM EFFECT-MIGH TEMPE AREA.	ERATURE ENVIRONMENT. TEMPERATURE!	HERE HOT HIGH ENOUGH	TO CAUSE I	AMAGE TO	8	CHENTS IN THE	
AZC-E7-D34/P3-403-D0-14 FLIGHT 14D 15 YES  AZC-E7-D34/P3-403-D0-14 FLIGHT 14D 15 HOS  OUT OF EXPECTED TEST VALUE. GUADRAHT 3 ENGINE COMPART TEMPERATURE, HEAR FUEL STAGING VALVE, STARTED SU 4.5 SECONDS. THIS TEMPERATURE EXCEEDED UNPER BAND LIHIT OF 186 DEGREES PROH 80 UNTIL 125 SECONDS. TEMP  A.5 SECONDS. THIS TEMPERATURE EXCEEDED UNPER BAND LIHIT OF 186 DEGREES PROH 80 UNTIL 125 SECONDS. TEMP  A.7 SECONDS. THIS TEMPERATURE ENVIRONMENT. TEMPERATURES IN GUADRAHTS 1 AND 4 REMAINED BETWEEN 39 AND  -HIGH TEMPERATURE ENVIRONMENT. TEMPERATURES WERE NOT HIGH ENCUGATION OF THE WAS GOSEN TO DURING ON AP  -HIGH TEMPERATURE ENVIRONMENT. THE BOOSTER SECTION EXPERIENCED AN OVER TEMPERATURE CONTINUE DURING THE THOMAS ON AP  T-MOME.  -HIGH TEMPERATURE ENVIRONMENT. THE BOOSTER SECTION EXPERIENCED AN OVER TEMPERATURE CONDITION DURING THE THOMAS CONFOUNDATION.  T-MOME.  T-MOME.  T-MOME.  T-MOME.  T-MOME.  T-MOME.  T-MOME.  THICH TEMPERATURE ENVIRONMENT. THE BOOSTER SECTION EXPERIENCED AN OVER TEMPERATURE CONDITION DURING THE MOLICATED.	VEHICLE EFFECT-NONE							
AZC-E7-054/P3-403-00-14 FLIGHT 14D 133 VES  90011 OF EXPECTED TEST VALUE, GAMDRANT 3 ENGINE COMPART TEMPERATURE, NEAR FUEL STAGING VALVE, STARTED SU  4.5 SECONDS. THIS TEMPERATURE EXCEEDED UPPER BAND LIHIT OF 186 DEGREES FROM 80 UNTIL 129 SECONDS. TEMP  DRANT Z MAS LOMER BUT INDICATED SAME TREND. TEMPERATURES IN QUADRANTS 1 AND 4 REMAINED BETMEEN 39 AND  -HIGH TEMPERATURE ENVIRONMENT. TEMPERATURES MERE NOT HIGH ENOUGH TO CAUSE DANAGE TO COMPONENTS IN THE  T-NOME.  EMISSZ/F4-402-00-10 FRF 10D 14 PPERATURE AT THE ENGINE CONTROL PNEUMATIC  CASED GRADUALLY TO A MAXINUM OF EGS DEGREES F AT 31 BECOMDS. NO SIGN OF TEMPERATURE CONTROL PNEUMATIC  CASED GRADUALLY TO A MAXINUM OF EGS DEGREES F AT 31 BECOMDS. NO SIGN OF TEMPERATURE CONDITION DURING ON AP  T-NOME. WO DANAGE WAS INCLARED.	CORRECTIVE ACTION-HONE.							
OUT OF EXPECTED TEST VALUE, GUADRANT 3 ENGINE COMPART TEMPERATURE, NEAR FUEL STAGING VALVE, STARTED SUDANT Z MAS LOWER BUT TEMPERATURE EXCEDED UPPER BAND LIMIT OF 186 DEGREES FROM 80 UNTIL 129 SECONDS. TEMPORANT Z MAS LOWER BUT TEMPERATURE EXCEDED UPPER BAND LIMIT OF 186 DEGREES FROM 80 UNTIL 129 SECONDS. TEMPORANT Z MAS LOWER BUT TEMPERATURE ENVIRONMENT TEMPERATURE OF REMAINED BETHEEN 39 AND THE HAPPERATURE ENVIRONMENT. TEMPERATURE ENVIRONMENT TO A MAXIMUM OF 203 DEGREES F AT 31 BECONDS. NO SIGN OF TEMPERATURE CONTROL PNEUMATIC CASCO GRADUALLY TO A MAXIMUM OF 203 DEGREES F AT 31 BECONDS. NO SIGN OF TEMPERATURE CONDITION DURING THE NO DAMAGE WAS INCURRED.  THOM-NOWE, NO DETRIMENTAL EFFECTS GOSEAVED ON INDICATED ON ANY VEHICLE BYSTEM OR COMPONENT.	AIRFRAME-A/B BOOSTER SECTION	AZC-E7-054/P3-403-00-14	FLIGHT	14D 590911	13 84.3	<b>1</b> 0		00000
T-NOME.  T-NOME.  THOM-MONE.  EMISSE/F4-402-00-10 FRF 100 14 YES 905.03 ET NO MONEY TEMPERATURE AT THE EMETHE CONTROL PNEUMATIC ABOUT OF EXPECTED TEST VALUE, DURING FLIGHT READINESS FIRING TEMPERATURE AT THE EMETHE CONTROL PNEUMATIC EASED GRADUALLY TO A MAXIMUM OF E03 DEGREES F AT 31 SECONDS. NO SIGN OF FIRE WAS OBSERVED DURING OR AFT NO DAMAGE WAS INCURRED.  T-NOME. NO DETAILMENTAL EFFECTS OBSERVED ON INDICATED ON ANY VEHICLE SYSTEM OR COMPONENT.	FAILURE MODE-OUT OF EXPE DDEN RISE AT 64.5 SECONDI ERATURE IN QUMDRANT 2 MAI 75 DEGREES.	ECTED TEST VALUE, AUADRANT 3 ENG) S, THIS TEMPERATURE EXCEEDED UPPY S LOWER BUT INDICATED SAME TREND.	NE COMPART TEMPERATURE R BAND LIMIT OF 186 DE . TEMPERATURES IN QUADY	S NEAR FUR	L STAGIM 1 BG UNTIL 1 4 REMAIN	185 185	WE, STARTED SU SECONDS. TEMP THEEN SP AND	
THON-MONE.  EMISSE/F4-402-00-10 FRF 10D 14 YES 380503 ET NO.  OUT OF EXPECTED TEST VALUE. DURING PLIGHT READINESS FIRING TEMPERATURE AT THE ENGINE CONTROL PNEUMATIC EASED GRADUALLY TO A MAXIMUM OF 203 DEGREES F AT 31 ACCOMDS. NO SIGN OF FIRE WAS OBSERVED DURING ON AFTICH TEMPERATURE ENVIRONMENT. THE BOOSTER SECTION EXPERIENCED AN OVER TEMPERATURE CONDITION DURING TH TO DAMAGE WAS INCURRED.  T-NOME. NO DETAILMENTAL EFFECTS OBSERVED OR INDICATED ON ANY VEHICLE SYSTEM OR COMPONENT.	SYSTEM CFFECT-MIGH TEMPE AREA.	erature enviroment, temerature:	MERE NOT HIGH ENOUGH	TO CAUSE D	MANGE TO	Ö	MENTS IN THE	
EMISSE/F4-402-00-10 FRF 100 14 YES 9050S ET NO CENTROL ENISSE/F4-402-00-10 FRF 99050S ET NO CENTROL PAGE 100 14 YES 99050S ET NO CENTROL PAGE 100 OUT OF EXPECTED TEST VALUE, DURING FLIGHT READINESS FIRING TEMPERATURE AT THE EMETHE WAS OBSERVED DURING OR APPLICATEMENTURE ENVIRONMENT, THE BOOSTER SECTION EXPERIENCED AN OVER TEMPERATURE COMDITION DURING THE PAGE WAS INCURRED.  T-NOME, NO DETAILMENTAL EFFECTS OBSERVED ON INDICATED ON ANY VEHICLE SYSTEM ON COMPONENT.	VEHICLE EFFECT-NOME.							
EMISSE/F4-402-00-10 FRF 10D 14 YES SOCIED TO THE WAS SOCIED TEST VALUE. DURING FLIGHT READINESS FIRING TEMPERATURE AT THE EMGINE CONTROL PNEUMATIC EASED GRADUALLY TO A MAXIMUM OF 203 DEGREES F AT 51 BECONDS. NO SIGN OF PIRE WAS OBSERVED DURING ON AFTICH TEMPERATURE ENVIRONMENT. THE BOOGTER SECTION EXPERIENCED AN OVER TEMPERATURE CONDITION DURING TH T-MOME. NO DETAILMENTAL EFFECTS OBSERVED ON INDICATED ON ANY VEHICLE SYSTEM OR COMPONENT.	CORRECTIVE ACTION-HONE.	kaydinensi adahangsin sajali desembilipinin sajali yalikapinininin yakerin kalendari kana berasa kerasa kerasa						
FAILURE MODE-OUT OF EXFECTED TEST VALUE, DURING FLIGHT READINESS FIRING TEMPERATURE AT THE ENGINE CONTROL PNEUMATIC HANIFOLD INCREASED GRADUALLY TO A MAXIMUM OF EOS DEGREES F AT SI SECONDS. NO SIGN OF FIRE WAS OBSERVED DURING OR AFTER TEST, SYSTEM EFFECT-HIGH TEMPERATURE ENVIRONMENT, THE BOOSTER SECTION EXPERIENCED AN OVER TEMPERATURE CONDITION DURING TH VEHICLE EFFECT-MONE, NO DETRINENTAL EFFECTS OBSERVED OR INDICATED ON ANY VEHICLE SYSTEM OR COMPONENT.	AIRFRANE-A/B BOOSTER SECTION	EMISSE/F4-402-00-10	Ē	390503	3 <b>5</b>	ž Q		•• 120•
SYSTEM EFFECT-HIGH TENPERATURE ENVIRONMENT. THE BOOSTER SECTION EXPERIENCED AN OVER TEMPERATURE CONDITION DURING TH E HOT FIRING. NO DAMAGE MAS INCURRED. VEHICLE HOT FIRING. NO DAMAGE MAS INCURRED. VEHICLE EFFECT-HOME. NO DETRIMENTAL EFFECTS OBSERVED OR INDICATED ON ANY VEHICLE SYSTEM OR COMPONENT. CORRECTIVE ACTION-MOME INDICATED.	MODE-OUT OF	ECTED TEST VALUE, DURING PLIGHT F UALLY TO A MAXIMUM OF EDS DEGREES	EADINESS FIRING TEHPER F AT SL SECONDS. NO	ATURE AT	HE ENGINE	NEW WEEK	TROL PHEUMATIC DURING OR AF	
VEHICLE EFFECT-HOME. NO DETRINENTAL EFFECTA OBSERVED OR INDICATED OR ANY VEHICLE BYBTEM OR COMPONENT. Corrective action-mone indicated.	SYSTEM EFFECT-HIGH TEMPE E HOT FIRING, NO DAMAGE N	ERATURE ENVIRONMENT, THE BOOGTER WAS INCURRED.	SECTION EXPERIENCED AN	OVER TEM	ERATURE (	90	TION DURING TH	
COMMECTIVE ACTION-NOWE INDICATED.	VEHICLE EFFECT-NONE. NO	DETRIMENTAL EFFECTS OBSERVED OR	INDICATED ON ANY VEHIC	LE SYSTEM	og confo	KNT.		
	CORRECTIVE ACTION-NOWE I	INDICATED.						
							PA6C 0035	

PASE DOSE

GENERAL DYNAHICS CONVAIR DIVISION DIFFICULTIES REVIEW-AIRFRAME SYSTEM-AIRBORNE

19 10N 1966

811630 859459 . .7649 SYDICH EFFECT-HIGH TEMPERATURE ENVIRONMENT. ENSINE COMPARTMENT TEMPERATURES INCREASED STARTING AT 83.5 SECONDS. MEA SUREMENT PLAT (ENGINE COMPARTMENT AMBIENT) SHOWED PEAR OF 168 DEGF AT 185 SECONDS. P607T NEAR FUEL STAGING VALUE SHO FAILURE MODE-STRUCTURAL. FALLING OBJECTS WERE NOTED ON TRACKING FILM. FIRST OBJECT OBSERVED AT 46.8 SECONIS APPEARE D to be change, flat and oblowe about g on 3 peet wide. Origin apparently near be engine nacelle. Second object obse RVED at 50.5 Seconds from same area. VEHICLE SITE PRI VENDOR NAME
DATE DIP TIME DIP OTH VENDOR PART NO FAILURE MOCE-OUT OF SPECIFICATION OR TOLERANCE, AT PLUS 4 SECONDS, AN ENVINE COMPAFTMENT TEMPERATURE STARTED A RISE From 77 Def and reached a maximum of ROS Def at 71 seconds when engine compartment mater was turned on. CORRECTIVE ACTION-ENGINE COMPARTMENT WATER WAS TURNED ON AND TEMPERATURE BEGAN TO DECREASE, POST-TEST INVESTIGATION SHOWED THE ENGINE COMPARTMENT TO BE CLEAN WITH NO EVIDENCE OF ANY FIRE. FAILURE MODE-OUT OF EFPECTED TEST VALUE. ENGINE COMPARTMENT TEMPERATURE ABOME EXFECTED VALVES AS PROBABLE RESULT OF VEHICLE EFFECT-HOME, SMALL PIREBALLS WERE OBSERVED INTERMITTENTLY IN ENGINE EXMAUST FOR ED RECONDS AFTER SECOND FAL SYSICH EFFECT-HIGH TEMPERATURE ENVIRONMENT. A HIGH TEMPERATUIE (203 DGF) WAS INDICATED IN THE ENGINE COMPARTMENT. TES 60 CONVAIR S CONVAIR CORRECTIVE ACTION-SUBSEQUEN. IMPROVEMENT OF ENGINE BOOTS AND HEATSHIELD ON SERIES D. E AND F VEHICLES. YES No 14 PLUS 4 1E 46.05 SYSTEM EFFECT-NOME, LOSS OF OBJECTS HAD NO APPARENT EFFECT ON STRUCTURAL INTEGRITY OF VEHICLE. 12 83 83 100 590903 11C 590824 11C 590624 DIF DATA SOURCE PART NUMBER INCLUX OF HOT EXHAUST GASES THROKGH ENGINE BOOTS STARTING AT 83.5 SECONDS. 312 TEST/REPORT NUMBER FAILED COMPONENT NAME VEHICLE EFFECT-NONE. NO DETRINENTAL EFFECTS NOTED. ZC-7-223/P2-303-00-11 ENGINE COMPARTMENT ZC-T-E23/PE-303-00-11 FTA6065/P4-402-00-10 ENGINE COMPARTMENT LING GBJECT. CORRELATION NOT CONFIRMED. MED PEAK OF 193 DEGF AT 104 SECUNDS. CORRECTIVE ACTION-NOME. VEHICLE EFFECT-HONE. SUB-SYSTEM SYSTEM BOOSTER SECTION BOOSTER SECTION MOSTER SECTION AIRFRAME-A/B AIRFRAME-A/B AIHFRANE-A/B

15 JUN 1966

	DIFFICULTIES REVIEW-ATRRAME SYSTEM-AIRBORNE	RAME BYFTEM-AIRBORP	¥	-			
SYSTEM BUE-BYSTEH	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA BOURCE PART HUNDER	VEHICLE DATE DIF	SITE TIME DIF	PR I	PRI VENDOR NAME OTH VENDOR PART NO	
AIRFRANE-A/B BOOSTER SECTION	81-408-84-09 BGG EXHAUST BUCT BOOT	CAPTIVE	90 590904	19	YE& 60/C	10/0	:
FAILURE HODE-STRUCTURAL.	NUCTURAL. BOOT FOUND TORN ON BEAM AT LOMER CLAMP ATTACHHENT. DISCOVERED DURING POST TEST INSPECTION.	LAHP ATTACHHENT. DI	SCOVERED D	UNITAG POL	1	11 1K8PECTION.	
SYSTEM EFFECT-NOME. NO H	SYSTEH EFFECT-NOME. NO HIGH TEMPERATURES HOTED IN THRUST SECTION.	CTION.		•			
VEHICLE EFFECT-NOME.							
CORRECTIVE ACTION-REPAIR BOOT	R BOOT.						
AIRFRAHE-A/B BOOSTER SECTION	2C-7-221/P2-306-00-08	FLIGHT	6C 590721	12	2 €		995097
FAILURE MODE-OUT OF EXPE APPROXIMATELY 65 SECONDS. E.	FAILURE HODE-OUT OF EXPECTED TEST VALUE, TEMPERATURE MEASUREMENT PAAT INDICATED LARGE TEMPERATURE RISE STARTIMG AT IPPROXIMATELT 65 SECONDS, MAXIMUM TEMPERATURE WAS 289 DEG F. DASE PRESSURE REVERSAL APPEARS TO BE MOST PROBABLE CAUS 	IEHENT PAAT INDICATI . DASE PRESSURE REVI	ED LARGE TE ERSAL APPEA	MPERATURE RS TO BE	MOST.	PROGRABLE CAUS	,
SYSTEM EFFECT-HIGH TEMPE AXIMUM OF 269 DEG F AT 11 ING THIS INTERVAL. HIGHES	SYSTEM EFFECT-HIGH TEMPERATURE ENVIRONMENT, AT ABOUT 85 SECONDS PLAT STARTED INCREASING FROM 89 DEG F ANY REACHED M AXIMUM OF 289 DEG F AT 113 SECONDS, ALL OTMER ENGINE COMPARTMENT TEMTERATURE MEASUREMENTS SMOMED MINOR INCFEASES DUR ING THIS INTERVAL, HIGHEST TEMPERATURE OF APPROXIMATELY TO DEG F WAS RECORDED BY ASELT AT 85 SECONDS.	IONDS PLAT STARTED S PHENT TEMTERATURE ME SEG F WAS RECORDED S	INCREASING CASURENENTS IY ASELT AT	SHOMED S	E Z Z	AND REACHED H INCFEASES DUR	
VEHICLE EFFECT-NOME, NO	VEHICLE EFFECT-NOME, NO DETRIMENTAL EFFECTS NOTED AS RESULT OF HIGH TEMPERATURE.	I OF HIGH TEMPERATUR	ني				
CORRECTIVE ACTION-UNKNOWN.	<b>4.</b> ,						
AIRFRAME-A/B BOOSTER SECTION	32-409- <b>24-</b> 02 8007	CAPTIVE	## ## ## ##	2	7ES 60/C	) O:	***************************************
FAILURE HODE-STRUCTURAL.	FAILURE HODE-STRUCTURAL. POST TERT INSPECTION REVEALED TORN BOOT.	+ B251.					
SYSTEM EFFECT-NONE. NO A	SYSIEM EFFECT-NONG. NJ ABNORMAL ENGING COMPARTMENT TEMPERATURES.	TURES.					
VEHILLE EFFECT-NONE.							
CORRECTIVE ACTION-REPLACE BOOT.	IE BOOT.						
AIRFRAME-A/B BOOSTER SECTION	52-409- <b>54-</b> 02 82 <b>5</b> 001	CAUTIVE	# # # # # # # # # # # # # # # # # # #	*	7E\$ 60/0		
FAILURE MODE-STRUCTURAL.	SUCTURAL. POST TEST INSPECTION REVEALED TORN BOOT.	. 1007.					
SYSTEM EFFECT-HOME, NO A	SYSTEM EFFECT-HOME, NO ABNORMAL TEMPERATURE INCREASES.						
VEHICLE EFFECT-HOME.							

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GENERAL DYNAHICS CONVAIR DIVISION

\$7.51EH \$UB-\$7.5TEH	TEST/REPORT NUMBER FAILED COMPOMENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	817E 71ME D1F	PRI VEND	VENDOR NAME	
CORRECTIVE ACTION-REP	ION-REPLACE BOOT.						69EEE1
AIRFRAHE-A/B BOOSTER SECTION	98-02-005 SUPPORT, JETTISON ROLLER	FAR 7-78098	7D 5903£7	CTR	YES CONV	CONVAIR-FORT W	000724
FAILURE MODE-STRUCTUR MISSILLE HORIZONTAL. NTATION OCCURS TO BOOS AT MATE-DEMATE 13 MOY T CAUSE TROUBLE DUPING	FAILURE MODE-STRUCTURAL-THREE SUPPORTS CRACKED FROM HISALIGNMENT DURING DEMATING AFTER 40 INCHES OF SEPARATION WITH MISSILLE HORIZONTAL. (ONE FAILURE WAS ON HISSILE SD ON 4/7/39 AND TWO WERE ON 7D DATED 3/27/39), AN EGG-SHAPED INDE MATION OCCURS TO BOOSTER SECTION AT D'HATING RESULTING 14 MISALIGHMENT UP TO 1/2 INCH. ANOTHER MISALIGHMENT PROBLEM AT MATE-DEMATE IS MOVEMENT OF THE OVERHEAD CRAIN. ENGINESRING CALCULATIONS INDICATE THAT THIS DISCREPINCY SHOULD NO CAUSE TROUBLE DURING STAGING IN FLIGHT.	LIGNMENT DURING DEHAT! 77/39 AND TWO WERE ON 14 MISALIGNMENT UP TO 1 ERING CALCULATIONS IN	NG AFTER 4 70 DATED 3 7E INCH. J	10 INCHES 1/27/59). INOTHER HI THIS DIS	OF SEPARI An EGG—31 Salignyei Crepancy	ATION WITH APED INDE ST PROBLEM BHOULD NO	
CORRECTIVE ACTION-THE 37D AND ON 37D AND ON	ON-THE LAAINATED SUPPORTS WERE REPLACED WITH ALUMINUM SUPPORTS AS USED ON THE C SERIES. EFFECTIVE ON	ITH ALUHINUM BUPPORTS	A& USED &	1 THE C 96	RIES. EFI	ECTIVE ON	
AIRFRANE - A/B BOOSTER SECTION	31-307-85-02 STRUTS	CAPTIVE	2C 590106	18	\$ Q		0160
FAILURE MODE-STRUCTIR	FAILURE MODE-STRUCTURAL. THREE STRUTS LOCATED IN THE MISSILE FAIRINSS MERE FOUND BROKEN DURING POST TEST INSPECTION	SILE FAIRINSS WERE FO	MD BROKEN	DURING PO	97 TEST	INSPECTION	<u>.</u>
SYSTEM EFFECT-NOME.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-REP	ON-REPAIR STRUIS.						
AIRFRAME-A/B BOOSTER SECTION	31-306-84-02 DIACONAL STRUT	CAPTI VE 7-77277-15 AND 19	EC 981884	=	3 3 3 4		:
FAILURE MODE-STRUCTUR C SHIELD IN THE MISSIL	RUCTURAL. POST TEST INSPECTION REVEALED TEN DIACOMAL STRUTS LOCATED BETWEEN STATION 1240 AND THE FIR MISSILE FAIRINGS WERE BROKEN.	EN DIACCHAL STRUTS LOC	ATED BETVE	EN BTATIQ	H 1840 A	D THE FIR	
SYSTEM EFFECT-NOME.						<u>-</u>	
VEHICLE EFFECT-HOME.							
CORRECTIVE ACTION-STR	ON-STRUTS WERE REPAIRED.					•	
AIRFRAME-A/B BOOSTER SECTION	FTA 4422/P2-301-00-3	787	3C 361217	=	22		
PAILURE MODE-OUT OF 8	PAILUME MODE-OUT OF SPECIFICATION OR TOLERANCE, MINOR ENGINE COMPARTMENT FIRE AFTER SHUTDOMN,	INE COMPARTMENT FIRE	AFTER SHUT	00			

CORRECTIVE ACTION-THE CENTRAL PORTION OF THE HEAT BHIELD WAS COVERED WITH A THIN STAIMLESS STEEL PLATE.

SYSTEM EFFECT-NONE. THERE WAS NO ATREADE EFFECT FROM THE GOLD PLATING BURNING OFF.

VEHICLE EFFECT-NONE.

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CONVAIR DIVISION

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E SYSTEX-AIRBORNE	DIF DATA SOURCE VEHICLE SITE PRI VENDOR NAME PART HUMBER DATE DIF TIME DIF OTH VENDOR PART NO	GH TEMPERATURE ENVIRONMENT. FIRE CAUSED MEGLIGIBLE DAMAGE. NO COMPONENT CHANGES WERE NEEDED.			F 128 14 NC 361121 -2700 NO	OF EXPECTED TEST VALVE. ENGINE COMPARTMENT TEMP. WAS INDICATED BY LANDLING TO BE 35 DGF WHEN RECO- LES TO 135 DGF.	34 TEMPERATURE ENVIRYMENT, TEMPERATURE IN THRUST SECTION WAS INDICATED TO BE ONLY 35 DOF.		CORRECTIVE ACTICAL-HOLD TO VERIFY THRUST SECTION TEMPERATURE, CHECKED HEAT DUCT AT TEST STAND WHICH WAS ON. TELEMETR Indicated 60 dgf. Proglem was apparently Landline Instrumentation.	FLIGHT 68 13 NO GO CONVAIR SADDIS LIFTOFF NO	. BI ENGINE BIDE WILM, DURING LIFTOFF THE LAUNCHER RELIOPERLY AND WENT DRAGGED ALONG THE FAIRING AS THE MISS	SYSTEM EFFECT-LOSS OF STRUCTURAL INTEGRITY. MOLES WERE TORN IN THE FAIRING BUT NO APPARENT DAMAGE OF SIGNIFICANCE M S DONE TO ANY INTERNAL SYSTEMS.	VEHICLE INTEGRITY. AERCOYNAMIC INTEGRITY OF THE VEHICLE WAS DESTROYED ON THE BE ENGINE SIDE STUDIES HAVE REVEALED NO CONNECTION OF THIS DAMAGE WITH THE BUSSEQUENT LOGS OF THE VEHICLE.	CCDURES.	CAPTIVE 78 1-1 NO 360904 NO	FAILURE HODE-FAIL DURING OPERATION. THE GOLD PLATING ON THE AFT BURFACE OF THE HEAT BHIELD HAB BURMED AWAY BY AN EM THE COMPARTNENT FIRE. THE ORIGIN OF THE FIRE IB UNKNOWN.
DIFFICULTIES REVIEW-AIRFRAME SYSTEM-AIRBORNE	TEST/REPORT NUMBER FAILED COMPONENT NAME	PERATURE ENVIRONMENT. FIRE CAUSED MEGLIG			FTA 4410/P4-201-00-12 FRF	OF EXPECTED TEST VALVE, ENGINE COMPARTMENT TEL	ERATURE ENVIR'SWENT. TEMPERATURE IN THRU	CANTDOM DELAYED. S MINUTE HOLD.	CORRECTIVE ACTICAL-MOLD TO VERIFY THRUST SECTION TEMPERATURE, CHECKEY INDICATED SO DGF. PROSIEN WAS APPARENTLY LANDLINE INSTRUMENTATION.	ZC-7-E03/P3-ZDE-00-08 B1 ENGINE MACELLE FAIRING	FAILURE MODE-STRUCTURAL, HOLES VERE TORN IN THE FAIRING ON THE BI ENGINE EASE ARH ACTUATING STRUT AND LAUNCHER HEAD FAILED TO ACTUATE PROPERLY AND ILE ROSE.	STRUCTURAL INTEGRITY. HOLES WERE TORN IN SYGTEMS.	VEHICLE INTEGRITY. AERCOYNAMIC INTEGRITY STUDIES HAVE REVEALED NO CONNECTION OF	CORRECTIVE ACTION-CHANGE LAUNCHER MAINTENANCE AND CHECKOUT PROCEDURES.	20-7-079/11-203-C1-07 GOLD PLATING ON HEAT BHIELD	ig operation. The gold plating on the Ap' The origin of the fire is unknown.
	BYBTEK BUB-BYBTEK	STSTEM EFFECT-HIGH TEMP	VEHICLE EFFECT-FIRE.	CORRECTIVE ACTION-NOME.	AIRFRAME-A/B BOOSTER BECTION	FAILURE MODE-OUT OF EXPL HEATER WAS SET AT 125 TO	SYSTEM EFFECT-LOM TEMPE	VEHICLE EPFECT-CO.NIDON	CORRECTIVE ACTICAL-HOLD T INDICATED CO DGF. PROP	AIRFRAHE-A/B BOOSTER SECTION	FAILURE MODE-STRUCTURAL EASE ARM ACTUATING STRUT ILE ROSE.	SYSTEM EFFECT-LOSS OF STRUCTURA AS DONE TO ANY INTERNAL SYSTEMS.	VEHICLE EFFECT-LOSS OF OF THE BOOSTER SECTION. I HOMEVER.	CORRECTIVE ACTION-CHANGE	AIRFRAME-A/B BOOSTER SECTION	FAILURE MODE-FAIL DURING

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		<del>,</del>													
	VEHICLE BITE PRI VENOM NAME	06 1-4 YES		BYSTEM EFFECT-HIGH TEMPERATURE ENVIRONMENT, RESULTED IN NUMEROUB DATA TRACES EXPERIENCING EXCESSINE INSTRUMENTATION Shifts due to heating.			12 YES 20 31.9 HO	FAILURE HODE-STRUCTURAL. IT IS CONCLUDED THAT AERODYNAMIC HEATING IN THE VERNIER AREA OCC'RRED DUE TO RAM AIR ENTER NG THROUGH THE VERNIER FAIRING. THIS RAM AIR IN TURN CAUSED SHORTING OF THE VERNIER FEED UNCR TRANSDUCERS.		S SECONDS.	CORRECTIVE ACTION-COMPLETE SEAL AT FORWARD PORTION OF FAIRING. ALUMINUM SHIELD TO COVER END OF VERNIER FAIRING, FEE DBACK TRANSDUCER SOLDERED PLUGS REPLACED WITH PERNAMENT APLICE. TRANSDUCER WIRING SLEEVED IN FIBERGLASS AND ROUTED T HROUGH CCHDUIT. ALL VERNIER ENGINE ARE WIRING WAPPED IN ALUMINUM FOIL. NICHRONE WILL REPLACE WIRING ON TWO EXCITATI THE LADS TO THE TWO VERNIER FEED BACK TRANSDUCERS.	14 YES GO CONVAIR 07 85 NO	FAILUME MODE-OUT OF EMPECTED TEST VALUE, MAXIMUM TEMPERATUME RECONDED WAS SKO DEGREES F AT 114 SECONDS MECONDED BY ASSAT. THIS MEASUREMENT REACHED 150 DEGREES F AT AS SECONDS AND MEMAINED ADOVE THIS LEVEL UNTIL 140 SECONDS.	SERVED.	VEHICLE EFFECT-NOME, MOMEVER, VEHICLE BREAKUP OCCURRED AT 186 SECONDS DUE TO INSTABILITY MARN PLICAT CONTROL SYSTEM
Y D T EM-A I R BORNE	DIF DATA BOURCE VEHICLE PART NUMBER DATE DI	909088 JA		DATA TRACES EXPERIES			11 11A 580220	IN THE VERNIER ARE, ING OF THE VERNIER I	ż	JITING DOLM AT 113.5	UMINUM SHIELD TO CO ANSDUCER WIRING SLEI FOIL, NICHROMZ WILL	17 13A 560207	NDED WAS SHO DEGREES HAINED ADOVE THIS LI	'AL EFFECTS WERE OBS	OWS DUE TO INSTABLE
GENERAL DAMICS CONVAIR DIVISION DIFFICULTIES REVIEW-AIRFRAME SYSTEM-AIRBORME		-84 CAPTIVE	CURTAIN FAILED.	REBULTED IN NUMEROUS			-11 FLIGHT	AT AERODYNAHIC HEATING R IN TURN CAUSED SHORT	WITHIN THE VERNIER ARE	TH VEHICLE ENGINES SHI	PORTION OF FAIRING. ALM PERNANENT APLICE. TE G. WRAPPED IN ALUMINUM UCERS.	-15 FLIGHT	XIHUM TEMPERATURE RECC F at 89 seconds and re	HONEVER, NO DETRIMENT	UP OCCURRED AT 156 BEC
DIFFICUL	TEST/REPORT NUMBER	EM-1026/TEST14-308-84 FLAME CURTAIN	FAILURE MODE-FAILED DURING OPERATION. PLAME CURTAIN FAILED.	EMPERATURE ENVIRONMENT. 16.		K NOLA.	2C-7-098/PE-103-00-11 VERNIER FAIRING	FAILURE HODE-STRUCTURAL. IT IS CONCLUDED THAT AERODYNAMIC HEATING IN THE VERNIER AREA OCC'RRED DUE TO RAW ING THROUGH THE VERNIER FAIRING. THIS RAM AIR IN TURN CAUSED SHORTING OF THE VERNIER FEED U.CK TRAHSDUCERS.	SYSTEM EFFECT-HIGH TEMPERATURE ENVIRONMENT WITHIN THE VERNIER AREA.	VEHICLE EFFECT-LOSS OF VEHICLE STABILITY WITH VEHICLE ENGINES SHUTTING DOWN AT 113.5 SECONDS.	CORRECTIVE ACTION-COMPLETE SEAL AT FORMARD PORTION OF FAIRING. ALUMINUM SMIELD TO COVER END OF VERNIER DOACK TRANSDUCER SOLDERED PLUGS REPLACED WITH PERRANENT APLICE, TRANSDUCER WIRING SLEEVED IN FIBERGLASS HROUGH CCHOUIT. ALL VERNIER ENGINE ARE WIRING WARPPED IN ALUMINUM FOIL. NICHRONE WILL REPLACE WIRING ON THE LADS TO THE TWO VERNIER FEED BACK TRANSDUCERS.	2C-7-D95/P4-1D2-DD-15 ENGINE COMPANIMENT	EXPECTED TEST VALUE. MA MT MEACHED 150 DEGREES	SVATEM EFFECT-HIGH TEMPERATURE ENVIRONMENT, MOMEVER, NO DETRIMENTAL EFFECTS MERE OBSERVED.	HOMEVER, VEHICLE BREAK IN FLIGHT.
9961 NOT S1	SYSTEM SUB-SYSTEM	AIRFRAME-A/B BOOSTER SECTION	FAILURE MODE-FAILED	BYSTEM EFFECT-HIGH TEM BHIFTS DUE TO MEATING.	VEHICLE EFFECT-NOME.	CORRECTIVE ACTION-UNKNOWN.	AIRFRAME-A/B BOOSTER SECTION	FAILURE HODE-STRUCTU ING THROUGH THE VERNI	SYSTEM EFFECT-HIGH T	VEHICLE EFFECT-LOSS	CORRECTIVE ACTION-CO DBACK TRANSDUCER SOLD HROUGH CCHOUIT, ALL V ON LEADS TO THE TWO W	ATRFRANE-A/B BOOSTER SECTION	FAILURE HODE-OUT OF ASSAULT HIS HEASURENE	STATEM EFFECT-MIGH T	VEHICLE EFFECT-NOME, HOMEVER,

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FAILURE MODE-STRUCTURAL. IT IS CONCLUDED THAT AERODYNAMIC HEATING IN THE VERNIER AREA OCCURRED DUE TO RAM AIR ENTER IMP THROUGH THE VERHIER FAIRING. THIS RAM AIR IN TURN CAUSED SHORTING OF THE VERNIER FEEDSACK TRANSDUCERS.

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ZC-T-045/P4-102-00-15 VERKIER FAIRING

CORRECTIVE ACTION-NOME.

AIRFRANE-A/B

PASE 0040

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					18094					*****						
	VEHICLE SITE PRI VENDOR NAME DATE DIF TIME DIF OTH VENGOR P/RT NO			R FAIRING, FEE		ON 1216 ROSE F THER ENGINE CO	IDENCED BY TEL			YES 50/C NO	OPEN END OF T	E THRUST CHANS	D- THREE STRUT		YES 60/C NO	
	# 5 0			ERNIE RGLAS RING	<b>2</b> 8	TATE O ONT	44 EV			4E.8	₹ 1	7 .	<b>\$</b>		<b>1</b> 2	
	817E 7196 01F	-		END OF W IN FIBE FPLACE WIL	:	SUAD IV.	ARDIMAE			7- 4	TED AROUN	NITY OF	T MEL AN		<u>-</u>	
¥	VEHICLE DATE DIF		BECOMDS.	TO COVER ING SLEEVED	12A 371217	LINE IN C	HISTER			5A 571029	HAD TARST	N THE VICE 1001.	בררבי שמוש		5A 571024	APE.
IAME SYSTEM-AIRBORN	DIF DATA SOURCE PART NUMBER	ER AREA.	UP OCCURRING AT 158	46. ALUMINUM BHIELD CE. TRANSDUCER WIRI UMINUM POIL, NICHRO	FLIGHT	E NEAR THE OIL VENT SECONDS MHERE IT R	NOT DETRINENTAL TO			CAPTI VE	INE FIBERGLASS BOOT	A FIRE WAS NOTED I	ARED BY THE BE NAC		CAPTIVE	TWISTED OUT OF SH
DIFFICULTIES REVIEW-AIRFRAME SYSTEM-AIRBORNE	TEST/REFORT NUMBER FAILED COMPONENT NAME	BYSTEM EFFECT-HIGH TEMPERATURE ENVIRONMENT WITHIN THE VERNIER AREA.	NEMICLE EFFECT-LOSS OF VEHICLE STABILITY WITH VEHICLE BREAKUP OCCURRING AT 156 SECONDS.	CORECTIVE ACTICH-COMPLETE SEAL AT FORMAND MONTION OF PAIRING. ALUMINUM BHIELD TO COVER END OF VERNIER FAIRING, FEE DBACK TRANSDUCER SOLDERED FUGS REPLACED WITH PEHANNENT SPLICE. TRANSDUCER WIRING SLEEVED IN FIBERGLASS AND MOUTEU THROUGH COMDUIT. ALL VERHIER ENGINE AREA WIRING ON TWO EXCITATION LEADS TO THE TWO VERHIER FEEDBACK TRANSDUCERS.	.C-7-093-12A/P4-102-00-12	FAILURE MODE-OUT OF EXPECTED TEST VALUE. AMBIENT TEMPERATURE MEAR THE OIL VENT LIME IN GUAD IV, STATICM 1216 ROSE F ROM O DGF AT TEST START TO A MAXIMUM OFF REG DEGREES F AT 8D SECONDS MAGRE IT REMAINED CONSTANT. TWO OTHER EMSIME CO MPARTMENT TEMPERATURES REMAINED BETWEEN 100 AND 120 DEGREES F.	SYSTEM EFFECT-HIGH TEMPENATURE ENVIFONMENT. TEMPERATURE WAS NOT DETRINENTAL TO MINJILE MARDWARE AS EVIDENCED BY TEL Metered data.			13-11,1135P-6 62 ENGINE BOOT	FAILURE MOGE-STRUCTIGAL-POST TEST INSPECTION REVEALED THAT THE FIBERGLASS BOOT HAD THISTED AROUND THE CPEN END OF ELUGE-CIL DRAIN PLPE DURING ENGINE GINSALLING.	STSTEM EFECT-MICH TEMPERATURE ENVIRONMENT-AT ENGINE CUTOPF A FIRE WAS NOTED IN THE VICINITY OF THE BE THRUST CHANG ER. The fire was caused by accumulation of Lube-Oil on the Taisted Fiberalass Boot.	VEHICLE EFFECT-FIRE-AS A RESULT OF THE FIRE, DANAGE WAS INCURRED BY THE BR NACELLE, SAIRT WEL AND QUAD- THREE STRUT		ЕН-7331-1,112-3P9-DS BE ENGINE ANTI-FIRE BOOT	FAILUME MODE-STRUCTURAL. THE BE ENGINE ANTI-PIME BOOT BECAME TWISTED OUT OF SHAPE.
1961 NOT 61	\$7.87EM \$UG-5737EM	SYSTEM EFFECT-MICH TENTERA	VEHICLE EFFECT-LOSS OF VEH	COHFECTIVE ACTION-COMPLETE SEAL AT FORMARD PORTION BRACK TRANSDUCER SOLDERED PLUGS REPLACED WITH PEHN HROUGH COMDUIT, ALL VER-HER ENGINE AREA WIRING WRAITON LEADS TO THE TWO VER.HEY FEEDBACK TRANSDUCERS.	AIRFRAME ALCTION	FAILURE MODE-OUT OF EXPECT ROH O DGF AT TEST START TO MARTHENT TEMPERATURES REMA	SYSTEM EFFECT-HIGH TEMPERA EMETERED DATA.	WEHICLE EFFECT-NOME.	CORRECTIVE ACTION-NONE.	AIRFRAME-A/B BOOSTER SECTION B	FAILURE MODE-STRUCTURAL-POST TEST INSPECTION RE HE LUGE-CIL DRAIN PIPE DURING ENGINE GINBALLING.	SYSTEM EFFECT-MIGH TEMPERA ER. THE FIRE WAS CAUSED BY	WENICLE EFFECT-FIRE-AS A R.	CORRECTIVE ACTION-UNKNOWN.	AIRFRANG-A/B BOOSTER SECTION B	FAILURE MODE-STRUCTURAL. TO

BYBICH EFFECT-HIGH TEMPERATURE ENVIRONMENT. THIS HIGH TEMPERATURE ENVIRONMENT WAS CAUSED BY ACCUMULATION OF LUSE OF L in the Boot after it has thisted out of shape.

MEMICLE EFFECT-FIRE CAUSED BY THE ACCUMULATION OF LUBE OIL.

15 JUN 1866

DIFFICULTIES REVIEW-AIRFRAME SYSTEM-AIRBORNE

3737EH 8UB-3737EH	TEST/REPORT NUMBER FAILED CONPONENT NAME	DIF DATA BOUNCE PART NUMBER	VEHICLE DATE DIF	\$17E	PRI VENDOR NAME OTH VENDOR PART NO	A ME
CORRECTIVE ACTION-UTILI	-UTILIZATION OF A HEAT SHIELD.					***************************************
AIRFRANE-A/B BOOSTER SECTION	EM-7511-1,111-3P4-05 BE MACELLE	CAPTIVE	5A \$71017		22	
FAILURE MODE-STRUCTIRAL	FAILURE MODE-STRUCT!RAL, FIRE DAMAGE WAS SUSTAINED BY THE BE MACELLE IN QUADRANT III.	2 NACELLE IN QUADRA	NT 111.			
SYSTEM EFFECT-LOSS OF S	STRUCTURAL INTEGRITY. THE PIRE DAMAGE SUSTAINED BY THE BE MACELLE WAS CAUSED BY THE HIGH TEMP A RESULT OF NO HEAT SHIELD.	SUSTAINED BY THE B	S MACELLE	HAS CAUSE	D BY THE HIGH	31
VEHICLE EFFECT-NOME.						
CORRECTIVE ACTION-UTILIZATION OF	IZATION OF A HEAT SHIELD.					
AIRFRANG-A/B BOOSTER SECTION	EN-6011-1,110-3P3-05 HEAT RADIATION SHIELD MED PROTECTI ON PLATES	CAPTIVE	5A 571015	:	99	
FAILURE HODE-STRUCTURAL. MERE BUCKLED OR BURNED.	L. SEVERAL OF THE LOWER WEB PROTECTION PLATES INSTALLED AS PART OF THE HEAT RADIATION SHIELD	N PLATES INSTALLED	AS PART OF	THE HEAT	RADIATION SH	IECO
SYSTEM EFFECT-HIGH TEMPERATURE ENVIRONMENT.	PERATURE ENVIRCHMENT.					
VEHICLE EFFECT-FIRE-THE INE COMPARTHENT THROUGH	VEHICLE EFFECT-FIRE-THE HIGH TEMPERATURE ENVIRONENT WAS CAUSED BY THE BGG EXHAUST GASES BEING CARRIED INTO THE ENG THE COMPARTHENT THROUGH OPENINGS FOR THE ENGINES AND THE BGG EXHAUST DUCT BY CONVECTION CURRENTS.	USED BY THE BGG EXH. EXHAUST DUCT BY CO	AUST GASES	BEING CA URKENTS.	RRIED INTO THE	- Ext
CORRECTIVE ACTION-USE E	ENGINE ANTI-FIRE BOOTS AND HEATSHIELD.	•				
AINFRAME-A/D BOOSTER SECTION	EM-630/109-8PE-09 BE MACELLE	CAPTIVE	5A \$71003		22	
FAILURE MOSE-STRUCTURAL AMAGE IN THE LOWER PART USED BY GG EXMAUST PRODU E OPENIMS FOR THE BE CHA	FAILURE MODE-BTRUCTURAL. POST TEST CREERVATION REVEALED EVIDENCE OF FIRE IN THE THRUST SECTION MAICH CAUSED MINOR D MAKE IN THE LOWER PART OF QUADPANT III SKIRT AREA BURNING THO STRUTS, HOTION PICTURE INDICATE THIS MAT HAVE BEEN CA SED BY GG ENAUST PRODUCTS MAICH START BURNING JUST BELOW THE EMAUST DUCT AND DRIFT INTO THE BE MACELLE THROUGH TH OPENING FOR THE BE CHANGER,	DENCE OF FIRE IN THE THRUST SECTION TO STRUTS. HOTION PICTURE INDICATE HE EMAUST DUCT AND DRIFT INTO THE	E THRUST S SCTURE IND DRIFT INT	ECTION NATIONAL	1 WHICH CAUSED MINOM THIS MAT HAVE BEEN BE MACELLE THROUGH	MINOR B BEEN CA COUGH TH
SYSTEM EFFECT-NONE.						
VEHICLE EFFECT-FIRE						•
CORRECTIVE ACTION-UTILE	-UTILIZATION OF BOOTS.					
AIRFRANC-A/B BOOSTER SECTION	ZC-2085-84/P4-102-00-08 BOOSTER BOOTS	PL1641	6A 8708R\$	==	ž 8	
PAILURE HODE-LEAR ENTER	FAILUME MODE-LEAK EXTERMAL. BETWEEN 28 AND 40 BECOMDS, THE ENGINE COMPARTMENT TEHPS INDICATED A FIRE OR RECIRCULATI On of mot gabes from the chambers. Vehicle configuration did not include engine boots.	ENGINE COMPARTMENT MOT INCLUDE ENGINE	TEHPS 1101	CATED A F	INE OR RECINC	ULA11
				,	3944	PA6E 0042

13 JUN 1966

GENERAL DYNAHICS CONVAIR DIVISION

	DIFFICULTIES REVIEW-AIRFRAME SYSTEM-AIRBORNE	RAME STATEM-AIRBORN	w				
3Y37EN 3UB-5137EN	FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	311E 11HE 01F	# 0 # ±	VENDOR NAME	
SYSTEM EFFECT-HIGH TEMP F 1000 DE6/F.	SYSTEM EFFECT-HIGH TEMPERATURE ENVIRONMENTAL, ENSINE COMPARTMENT AND HEAT SHIELD TEMPERATURES INDICATED IN EXCESS 1000 DE6/F.	THENT AND HEAT SHIE	LD TEMPERA	TURES INC	JICAT	ED IN EXCESS O	•••••
VEHICLE EPFECT-PREMATUR	PREMATURE BOOSTER ENGINE SHUTDOMN, PROPULSION SYSTEM FAILED AS A RESULT OF VIBRATION AND/OR HEATING. SUBSEQUENTLY DESTROYED BY RANGE SAFETY.	H SYSTEM FAILED AS	A REBULT O	F VIBRATI	8	ND/OR HEATING.	
CORRECTIVE ACTION-MOVE HEAT SHIELD EXCEPT INCE ESS STEEL INSTEAD OF ALL	CORRECTIVE ACTION-MOVE HEATSHIELD FORMARD 31 INCHES AND COAT AFT SIDE WITH FIBER GLASS. REMOVE ALL STRUCTURE AFT OF HEAT SHIELD EXCEPT MACELLES. REPLACE CRITICAL ALUMINUM PLUMBING WITH STAINLESS STEEL. HEAT SHIELD CHANGED TO STAIMLESS STEEL. HEAT SHIELD CHANGED TO STAIMLESS STEEL HEAT SHIELD CHANGED TO STAIM.	T AFT BIOC WITH FIBI BING WITH BTAINLEBS	ER GLASS. STEEL: HE	REMOVE AL AT SHIELD	CHA	RUCTURE AFT OF NEED TO STAIM.	
AIRFRAME-A/B BOOSTER SECTION	EH5341-1.106;3P-1 BOLTS	CAPTIVE	5A 570913	1-1	5 Q		88888
FAILURE HODE-OUT OF TOL	TOLERANCE. THE BOLTS THAT MOUNT THE SIMBAL JOINT ON THE MAIN STRUCTURE WERE FOUND TO BE UNDER T	BAL JOINT ON THE NA	IN STRUCTU	RE WERE !	9	TO BE UNDER T	
SYSTEM EFFECT-NOME, BOC Y MOUNTED GINBAL.	SYSTEM EFFECT-NOME. BOOSTER ENGINE OPERATION SMUTDOMN DUE TO THE BE RCC SYSTEM ACTIVATING AS A RESULT OF THE LOOSEL MOUNTED GINBAL.	O THE BE RCC SYSTEM	ACTIVATIN	6 AS A RI	EBUL.T	OF THE LOOSEL	
VEHICLE EFFECT-PREMATUR	PREMATURE PROPULSION SHUTDOWN.						
CORRECTIVE ACTION-THE B	OH-THE BOLTS WERE TORBUED TO SPECIFICATIONS AND PERSONNEL DIRECTED TO USE LATEST CALIBRATED TORBUE	AND PERSONNEL DIREC	150 TO USE	LATEST O	CALIE	NATED TORQUE W	
AIRFRAME-A/B BOOSTER SECTION	ATP1-1.43 QUAD THREE BOOSTER SKIRT BULKHEAD RING	CAPTIVE	5A 570 <b>6</b> 10	1-1	ă č		******
FAILURE MODE-STRUCTURAL QUAD THREE, WAS BURNED	RUCIURAL-POST TEST INVESTIGATION REVEALED THE BULKHEAD RIMG, AT THE AFT END OF THE BOOSTER SKIRT, IN	E BULKHEAD RIMG, AT	THE AFT E	15 OF 11	8	STER SKIRT, IN	
SYSYEM EFFECT-HIGH TEMPERATURE ENVIRONMENT.	CRATURE ENVIRONMENT.						
VEHICLE EFFECT-FIRE.	,						
CORRECTIVE ACTION-BULKHEAD WAS REPAIRED.	IEAD WAS REPAIRED.	*					
AIRFRANG-A/B BOOSTER SECTION	ZC-7-U34-4A/P4-103-U9-04 BOOSTER ENGINE BOOTS	f.reat	4A 570811	14	¥ 6		
FAILURE NODE-LEAK EXTER H THE CLOSE PROXIMITY OF RCULATION OF MOT 6ASES 1	FAILURE HODE-LEAK EXTERNAL. CONFIGURATION REQUIRENENTS DID NOT INCLUDE THE NEED FOR ENGINE BOOTS. THIS, COUPLED WIT H THE CLOSE PROXIMITY OF THE HEAT SHIELD TO THE BOTTOM OF THE BOOSTER CHAMERS AND TURBINE EXHAUST, ALLONED THE RECI ROULATION OF MOT GASES INTO THE THRUST SECTION.	NOT INCLUDE THE NEEL	FOR ENGI	NE BOOTS	<b>∄</b> ₹	S, COUPLED WIT LONED THE RECE	
SYSTEM EFFECT-MICH TEMP	SYSTEM EFFECT-HIGH TEMPERATURE ENVIRONMENT IN THE THRUST SECTION MAS POSSIBLY DETRIMENTAL FOR CONFOMENT OPERATION.	CTION MAS POSSIBLY I	DETRIMENTA	r 70A CO	Š	NT OPERATION.	

9961 NOT 51

		DIFFICULTIES REVIEW-AIRFRAME BYSTEM-AIRBORNE	ANE BYSTEM-AIRBORNE				
	SYSTEM SU6-8731EM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE SITE PRI	SITE PRI	VENDOR NAME	,
Š	VEHICLE EFFECT-LOSS OF VE	VEHICLE STABILITY. VEHICLE WAS DESTROYED BY RANGE SAFETY WHEN BR THRUST DECREASED	WED BY RANGE SAFETY	WHEN BR THR	UST DECRE	1360.	886271
5 6 3	CORRECTIVE ACTION-INSTALLED BOOTS, TO STAINLESS STEEL, TURBINE ENHAUST S ON THRUST SECTION, AND CUT ENGINE	CORRECTIVE ACTION-INSTALLED BOOTS, MOVED HEAT SHIELD FORMARD 31 INCHES, HEAT SHIELD MATERIAL CHANGED FROM ALUMINUM To staimless steel, turbine exhaust and lube oil drain extended and canted into free airstream, beal all corrugation S om thrust section, and cut engine macelles off at station 1283.	) 31 ÎNCHES, HEAT 8H JED AND CANTED ÎNTO .E83.	IELD MATERIA Free Airstre	L CHANGED AM, BEAL	CHANGED FROM ALUMINUM 1, BEAL ALL CORRUGATION	
AIRF	AIRFRAME-A/B BOOSTER SECTION	2C-7-E00/P1-E03-00-3 HEAT SHIELD	FLIGHT	•	, T		•••
7.0	ILURE HODE-STRUCTURAL-A CAUSE THE LUDE OIL DRAI	FAILURE HODE-STRUCTURAL-A LUBE OIL FIRE IN QUADRANT IV WAS EVIDENT AT ABOUT © SECONDS. THE FIRE APPARENTLY RESULTED Because the lude oil drains were rolted to Emhaust Near the Turbine Emhaust.	EVIDENT AT ABOUT 9 8 TURBINE EXMAUST.	ECONDS. THE	FIRE APPA	RENTLY RESULTED	
<b>5</b> 0	STSTEM EFFECT-MIGH TEMPER O CONVECTION IN THE AREA	STSTEN EFFECT-HIGH TEMPERATURE ENVIRONMENT- HEAT SHIELD CALORINETER DATA INDICATED EXCESSIVE MEAT INFINGEMENT DUE • CONVECTION IN THE AREA OF THE TURBINE EXHAUST AND LUBE OIL DRAIN LINES.	DRINETER DATA INDICA DRAIN LINES.	TED EXCESSIV	E MEAT 114	PINCEMENT DUE T	
¥ .	VEHICLE EFFECT-FIRE-THE FIRE APPARENTLY DID NO AT 41 SECONDS BECAUSE OF THE LOSS OF STABILITY.	VEHICLE EFFECT-FIRE-THE FIRE APPARENTLY DID NOT CONTRIBUTE TO THE PLICHT FAILURE WHICH RESULTED IN MISSILE BREAKUP T 41 SECONDS BECAUSE OF THE LOSS OF STABILITY.	10 THE FLIGHT FAILUR	E WHICH RESU	LTED 114 M	ISSILE BREAKUP	
0 M T	CORRECTIVE ACTION-THE PORTION OF THE H MER LUBE OIL DRAINS WERE RE-ROUTED TO D EFLACED WITH THREE-PLY FIDERGLAB BOOTS.	CORRECTIVE ACTION-THE PORTION OF THE HEAT SHIELD PROTECTING THE ENGINE FAIRINGS MAS BOURLED. THE BOOSTER AND SUSTAI HER LUBE OIL DRAINS WERE RE-ROUTED TO DISCHARGE INTO THE BOOSTER TUTBINE EXHAUST. THE ONE-PLY FIBERGLAS BOOTS WERE R EFLACED WITH THREE-PLY FIDERGLAS BOOTS.	THE ENGINE FAIRINGS STER TURBINE EXHAUST	HAS DOUBLET	. THE BOO Y FIBERGL	STER AND SUSTAI AS BOOTS WERE R	
AIR BUST	AIRFRANG-A/B BUBTAINGR SECTION	374-3-64-23	Rient	7117 PALC	ī	YES 60/C NO	• 1 • 0 • 0
ξ <u>.</u>	ILURE MODE-OUT OF TOLE!	FAILURE WOE-OUT OF TOLERANCE, A 5 CPS-MAX 1.26 P-P - LONGITUDIMAL LIFTOFF COCILLATION WAS EXPERIENCED. THIS WAS THE MICHEST AMPLITUDE RECORDED TO DATE ON AN BLV-8 BOOSTER.	TUDIMAL LIFTOFF ORGI	LLATION MAS	EXPERIENC	ED. THIS IMS TH	
	STRICH EFFECT-MOME-INC BY WEHICLE EFFECT-MOME.	SYSTEM EFFECT-MOME-THE STRUCTURE WAS MOT CONTROLLED AND BULNMEAD DELTA TRESSURE REMINED MELL MITHIN DESIGN LIMITS. Vehicle effect-mome.	LAMEAU MELTA TAKBBUT				
 	CORRECTIVE ACTION-OPEN-AI	CH-OPEN-AN INVESTIGATION IS BEING PERFORMED TO DETERMINE THE SIGNIFICANCE OF THIS ANDMALT.	TO DETERMINE THE SIG	HIFICANCE OF	THIS AND	HALY.	
	AIRFRANC-A/B BUBTAINER SECTION	CT-LE-02-036 BCLT8	FAR 80-62024-061	1160 OTHER 451203	E VE	STANDARD PRESS ED STEEL	*
	FAILURE MODE-STRUCTURAL. A PRIMARY CAUSE FOR BOLF! E FAILURE OCCURRED.	RUCTUMAL. BOLT FAILURE CRIGINATED AS A STRESS CORROBION MECHANISM. EXCESSIVE TORGUE ON BOLT WAS NOT FOR BOLT FAILURE. THERE IS NO MAY OF DETERMINING IF THE BOLTS HAD BEEN SUBJECTED TO RETORGUING BEFOILD.	A BTRESS CORROSION MECHANISM. EXCESSIVE TORGUE ON BOLT WAS NOT DETERMINING IP THE BOLTS HAD BEEN BUBJECTED TO RETORGUING BEFOR	M. EXCESSIVE	TOREUE C	H BOLT MAS NOT ETORSUING BEFOR	
8.5	CORRECTIVE ACTION-NO MEANINGFUL HISTORY, UNKNOWN ENVIRONMENTAL	CORRECTIVE ACTION-NO MEANIMGFUL CORRECTIVE ACTION IS APPLICABLE FOR THESE BOLT FAILURIES DUE TO TOTAL LACK OF FAILUR E HISTORT, UMENOM ENVIRONMENTAL EXPOSURE, POSSIBLE RETORBUING OR HISHANDLING DURING TISTING.	ABLE FOR THESE BOLT	FAILURIS DU	TO TOTAL	LACK OF PAILUR	-
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see war er	DIFFICULTIES REVIEW-AINFRAME SYSTEM-AIRBORNE	RAME SYSTEM-AIRBORN	w				
3757EM 346-3737EM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE SITE DATE DIF TIME DIF	\$17E 71ME D1F	9 0 1 1 1	PRI VENDOR NAME OTH VENDOR PART NO	
AIRFRAHE-A/B BUSTAINER SECTION	AA43-0021/P3-4BN-04-223	COMPOST TE-FRO/DPL E7-73D07-133	£250 650706	13	<u>د</u> ټو	CONVAIR	
FAILURE HODE-STRUCTURAL. NG OCCURRED IN THE EXTENS ATELY STATION 1026.	FAILURE HODE-STRUCTURAL, DURING DPL SECURING OPERATIONS, AS THE FIRST MOVABLE DECK EAST WAS BEING EXTENDED, A BINDI NG OCCURRED IN THE EXTENSION SYSTEM CAUSING THE DECK TO SKEW AND TEAR A 2 1/2 INCH HOLE IN THE FUEL TANK AT APPROXIM ATELY STATION 1028.	THE PIRST MOVABLE I	DECK EAST NCH HOLE 1	MAS BEIN N THE FU	7 CX 12	ENDED, A BINDI MK AT APPROXIM	
SYSTEM EFFECT-LOSS OF STRUCTURAL INTEGRITY.	RUCTURAL INTEGRITY.						
VEHICLE EFFECT-LOSS OF VEHICLE INTEGRITY.	VEHICLE EFFECT-LOSS OF VEHICLE INTEGRITY. Crosective actions and disconsides behavior that that by closing the tank with a fusion Weld and abbing a boubler P	SEING THE TANK WITH	A FUSTON	MELO AND	ACDI	ME A DOUBLER P	
LATE OVER THE AREA.							
AIRFRAME-A/B BUSTAINER SECTION	GOC/BRF65-034 COVER PLATE OVER NOM-USED AZUSA MO 66-72513-31 UNTING	COUNTDOMN 69-72513-31	7107	7-4	ž g		•
FAILURE HODE-OUT OF TOLE	FAILURE MODE-OUT OF TOLERANCE- COYER PLATE OVER THE NON USED AZUSA MOUNTING AT STATION 1133 HISSING.	D AZUSA MOUNTING AT	STATION S	133 HIBB	ž		
SYSTEM EFFECT-NOME.							
VEHICLE EFFECT-NONE - IN	VEHICLE EFFECT-NONE - INSTALLATION OF COVER PLATE ACCOMPLISHED DURING MON 43C MOLD.	HED DURING HON SOC !	tor.b.				
CORRECTIVE ACTION-INSTAL ER PLATES IN THE FACTORY. ECTION AND TIGER TEAM PER	CORRECTIVE ACTION-INSTALL COVER PLATE - EXISTING PAPEN WORK IS SATISFACTORY TO ACCOMPLISM INSTALLATION OF THESE COV ER PLATES IN THE FACTORY, REFERENCE SET OF STILL PHOTOGRAPHS TO BE USED BY INSPECTION DURING PRE LAUNCH CHECKS. INSP ECTION AND TIGER TEAM PERSONNEL HAVE BEEN ALERTED TO THIS PROBLEM.	IS SATISFACTORY TO 1 TO BE USED BY INSP CBLEM.	ACCOMPLIS ECTION DUR	H INSTALI ING PRE	ATTO	H OF THESE COV	
AIRFRAME-A/B SUSTAINER SECTION	CT-98-02-045 FUEL TANK - 18T STAGE, CENTAUN	FAR 57-00002	156D 650302		ž ž	,	*15*00
FAILURE MODE-STRUCTURAL. MINED AS A POSSIBLE CONTR N, HALF MAS RIPPED AND FO HIS IS SECONDARY TO ORIGI	FAILURE MODE-STRUCTURAL. A FRAGMENT OF FUEL TANK STRUCTURE THAT ATTACHED DIRLCTLY TO THE BOOSTER PRE- VALVE WAS EXA MINED AS A POSSIBLE CONTRIBUTION TO AC-5 MISSILE EXPLOSION, HALF OF THE BELL MOUTH MAS CCHVOLUTED IN AN AFT DIRECTION, HALF MAS RIPPED AND FOLDED FORMORD. NO EVIDENCE MAS FOUND OF BLOCKAGE OF THE PORT BELLMOUTH PRIOR TO EXPLOSION. THIS IS SECONDARY TO ORIGINAL MISSILE EXPLOSION.	THAT ATTACHED DIRLC HALF OF THE BELL MO I OF BLOCKAGE OF THE	TLY TO THE UTH MAS CO PORT BELL	BOOSTER HYOLUTED HOUTH PRE	PRE- IN A	VALVE WAS EXA N AFT DIRECTIO D'EXPLOSION. T	
	CORRECTIVE ACTION-MOME, NO ACTION IS APPLICABLE TO THIS SECONDARY PAILURE.	CHOARY FAILURE.					
AIRFRANE-A/B BUBTAINER SECTION	60/C-BKF65-010/A3-402-00-301 AIRFRAME	FLIGHT	3010 45030£	?.	22		
							-

FAILURE MODE-OUT OF TOLERANCE, SHOCKS OF 10.5 DEGREES PER SECOND PEAK-TO-PEAK ON THE ROLL RATE GYAO AND OVER 11.4 G OM UJGIA OCCURRED AT 48.5 SEC. ADDITIONAL SHOCKS MERE NOTED ON THE RATE GYROS AT 83.5 SEC. AT 1HIS TIME THERE WAS A N INCREASE IN PROFELLANT TAME PRESSURES. THIS WAS BELIEVED DUE TO PARTIAL BUKRHEAD REVERSAL DURING PLIGHT RESULTING PROM PMEUMATIC PAILURE.

15 JUN 1966

A. G. C. L. A.

15 JUN 1566	DIFFICULTIES REVIEW-AIRFRAME SYSTEM-AIRBORME	FRAME SYSTEM-AIRBORNE					
8737EM 8UB-8737EM	TEST/REPORT NUMBER FAILED COMPOMENT NAME	DIF DATA BOUNCE PART NUMBER	VEHICLE DATE DIF	811E TIME DIF	PRI VENDOR NAME OTH VENDOR PART NO	S T RO	
SYSTEM EFFECT-NOME, HOME	SYSTEM EFFECT-WOME, HOMEVER, IT IS BELIEVED THAT THE BULKHEAD PARTIALLY REVERSED.	EAD PARTIALLY REVERSI	ė			•	84113
VEHICLE EFFECT-NOME.							
CORRECTIVE ACTION-NOME.							
AIRFRAME-A/B BUSTAINER SECTION	60/A-DNZ64-D45/P6-LO-D3-DAC4 RETROROCKET FAIRING NOSE CAPS	Frient	1460	36.A	YES 40/C NO	-	101101
FAILURE MODE-STRUCTURAL. TION JETTISON, ATTRIBUTED	FAILURE MODE-STRUCTURAL, MOSE CAPS ON TWO OF EIGHT RETROROCKET FAIRINGS MERE PARTIALLY DISLODGED DURING BOOSTER SEC TION JETTISON, ATTRIBUTED TO PRESSURE BLOMBACK CREATED DURING JETTISON.	CKET FAIRINGS NERE P. NG JETTISON.	1871ALLY D	1 84.CD GEU	DURING BOOSTE		
SYSTEM EFFECT-MOME, MOSE LL EIGHT RETROROCKETS FIRE	SYSTEM EFFECT-WOME. NOSE CAPS REMAINED SUFFICIENTLY IN POSITION TO PROTECT RETROROCKETS FROM AERODYMMIC MEATIME. A LL EIGMT RETROROCKETS FIRED AT THE PROPER TINE INDICATING THAT NO DAWAGE WAS CAUGED BY PARTIALLY DISLODGING MOSE CAP S.	ITICH TO PROTECT RETI	TOROCKETS JRED BY FA	FROM AERO Rtially D	DYNAHIC HEAT! IBLODGING HO!	ING. A	
WEHICLE EFFECT-NOME.							
CORRECTIVE ACTION-MOME. S ROBLEM REPORT 884: 5-65-1.	CORRECTIVE ACTION-NOWE. SLIGHT HOWENENT OF NOSE CAPS WAS NOT CONSIDERED DETRINENTAL. REF-PROBLEH NUMBER 2, PLIGHT Obleh Report 684-5-65-1.	OT CONSTDERED DETRIM	ENTAL. REP	-PROBLEM	NUMBER E. PL	3	
AIRFRANE-A/9 8USTAINER SECTION	A1-4MO-D4-E10 CAP	COMPOST TE-FRD/DPL	2100	A-1	YE <b>8</b> NO	-	406365
FAILURE MODE-LEAK-EXTERN	FAILURE MODE-LEAR-EXTERNAL. FUEL WAS LEAKING FROM THE PRESSURE SENSE PORT ON THE SIDE OF THE MISSILE FUEL TANK.	SURE SENSE PORT ON TI	Æ 810E OF	THE MI 34	ILE FUEL TAN	:	
STREET EFFECT-NOME.							
CORPECTIVE ACTION-FUEL DI	DETAMED AND SENSE PORT CAP WAS TIGHTENED.	HTENED.					
AIRTRANE-A/B SUSTAINER SECTION	Сарвані і -041 /РЗ-4НО-02-289	COMPOSI TE-FRD/DPL	2690 64110£	13	<b>9 9</b>	<del></del>	
FAILURE MODE-OUT OF TOLES	FAILUNE MODE-OUT OF TOLERANCE. POD TEMPERATURES INCREASED WHEN POD AIR COMDITIONER FAILED.	WEN POD AIR CONDITION	DWER PAILE	á			
BYSTEM EFFECT-HIGH TEMPE	IGH TEMPERATURE ENVIRONMENT POO TEMPERATURE INCREASED.	INCREASED.					
VEHICLE EFFECT-COUNTDOM	VEHICLE EFFECT-COUNTDOAM DELAYED. REQUIRED SHUTDOAN OF BYSTEMS OFERATING IN THE PODS.	TEHS OPERATING IN THE	. 1008	•			
CORRECTIVE ACTION-DETAINS	CORRECTIVE ACTION-DETANKED LOR AND REPAIRED AGE POD AIR CONDITIONER.	HDITIONER.					

DIFFICULTIES REVIEW-AIRFRANE SYSTEM-AIRBORNE

CONVAIN

15 JUN 1966

	•			·	988474			911333			-		
NAME NO	34 1K	TUC TURE	r venic	LE CRAC	¥	of 7075			ER PART	F HAVE			
VENDOR NAME VENDOR PART NO	TES ROCKET PMR INC	TANK ST	Z REENTR	A POSSIB	YES GO/FT. MORTH	13 HADE			THE LATT	E AND HA			
F OTH	ž Q	ro E	ECT 0	CALED	Y. C.	3 366		78	31.18	ENGIN	The second second		ž 3
SITE TIME DIF	3 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	₹ 8 . 8	S 30 EFF	ETS REVE	ETA	TEMM. H		2 - 3 2 - 3 2 - 3	MOTED DA	JETAINER ZENANCE			
VEHICLE DATE DIF	365	EXPLODED ACMENTATI	THERE W	ETRO-ROCK	2500 640721	To PCD AN		3510	OHS VERE	IN THE SU.	SACRET COMPANY TO A SACRET OF THE PARTY OF T		2630 630211
DIF DATA BOURCE PART HUNBER	FLICHT	POD RETRO-ROCKET(8) USED RUPTURE AND FR	IE MAS LOST HOMEVER,	ITS TAKEN OF THESE R	FAR 7-73640~7	1 POD DOOR ADJACENT		PLIGHT	HOTUDINAL OSCILLATI	LLATIONS ORIGINATED	TO COMMUNICATION OF THE PROPERTY OF THE PROPER		FAR M1-1415-801
TEST/REPORT NUMBER FAILED COMPONENT NAME	60A-AP264-062/D1-601-00-36 RETRO-ROCKET	FAILURE MODE-STRUCTURAL, DURING RETRO ROCKET FIRING THE BR POD RETRO-ROCKET(8) EXPLODED. NYATEM FFFFT-FREIGRICH, EXPLOSION, FYER RETROROCKET(8) CAUSED RUPTURE AND FRAGMENTATION OF THE LOX TAME STRUCTUME		HOMEVER, POST TEST ANALYSIS OF X-RAYS TAKEN OF THESE RETRO-ROCKETS REVEALED A POSSIBLE CRAC ON ONE OF THE RETRO ROCKETS.	LV-98-02-030C EQUIPMENT POD DOOR HINGE	Ructural- Hinge Found Broken. Hinge was from Pod Door adjacent to Pod Antenma, Hinge 13 made of 7075	PART HAS NOT RECEIVED FOR AMILYSIS.	COA/BKF64-016/L3-401-00-331 A' RFRAME	SPECIFICATION OR TOLERANCE, 120 CPS LOWGITUDINAL OSCILLATIONS WERE NOTED DURING THE LATTER PART	SYSTEM EFFECT-MOME. IT IS SPECULATED THAT THE 12D CPS COCILLATIONS ORIGINATED IN THE SUSTAINER ENGINE AND HAY MAYE CAUSED DANAGE TO THE SUSTAINER THROUGHOUT FLIGHT.	estatementatementementementementementement	ON-NO CORRECTIVE ACTION TAKEN.	A-JA-GE-D38F Boas Assembly
	60A-AP RETRO-	RUCTURAL, DURING RETRO		ME. HOMEVER	LV-98- EQUIP	RAL- HINGE		COA/BRFG. A RFRANC	SPECSF1CAT!	SUSTAINER	and the same of th	CORRECTIM	A-1A-0
SYSTER SUB-SYSTER	AIRFRANC-A/B BUSTAINER SECTION	FAILURE MODE-STRUCTU	VEHICLE EFFECT-LOSS OF LE IMPACTING THE TARGET	CORRECTIVE ACTION-NONE. R IN THE GRAIN STRUCTURE	AIRFRANE-A/B SUSTAINER SECTION	FAILURE MODE-STRUCTU	CORRECTIVE ACTION-NONE-	AIRFRANG-A/B SUSTAINER SECTION	FAILURE MODE-OUT OF OF SUSTAINER PHASE.	SYSTEM EFFECT-NOME. CAUSED DANAGE TO THE	WENTCLE EFFECT-NONE.	CORRECTIVE ACTION-NO	AIRFRANC-A/B SUSTAINER SECTION

FAILURE MODE-OUT OF TOLERANCE-THE LOX TANK GROUND PRESSURIZATION MALE PLUG WOULD NOT SEAT INTO THE ET-TEGGS-9 BOSS, BECAUSE BOSD THREADS WERE D.DIA OUT OF CONCENTRICITY REQUIREMENTS.

CORRECTIVE ACTION-CONFIRMED: THE PRODUCTION PLANNING SHEET NOW COMPLIES WITH 27-72-00 (REV. E) WHICH SPECIFIES THE

PASE DOSS

CORRECTIVE ACTION-CONFINED. 1. RAR A-99-DESGOS AND SGOS-L ISSUED TO IMPROVE VENDOR BUALITY, VENDOR DID NOT ASSUME RESPONSIBILITY FOR THE CELLS AROUND THE MUT BEING FILLED WITH EPOXY. B. GD/A ECH 19488S OF 7/26/63 REVISED GD/A DRAW INGS TO ENLARGE THE HOLE (FROM D-850 TO D-820 INCH) AROUND THE NUT SO THAT THE SUMROUNDING CELLS WILL BE SEVERED THU

GENERAL DYNAHICS CONVAIR DIVISION

19 1UN 1966

			NAME					
-80.8	STETEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	\$17E 1ME 01F	I H O	SITE PRI VENDOR NAME TIME DIF OTH VENDOR PART NO	
ALLOWABLE O	1.00\$ INCH T.1.6	ALLOMBLE 0.005 INCH T.I.R. FOR CONCENTRICITY. EFFECTIVITY INS 4/1/65 PER B.C. LETTER ANDMERING RAR A-JA-02-3608.	MS 4/1/65 PER 6.C.	LETTER AND	ERING RA	-	A-02-3406.	*****
AIRFRAHE-A/B BUSTAINER SECTION	CT10N	A-99-02-033C PCO WIRING BEAM	FAR 7-73233	421205	FACTORY	2 Q		
FAILURE MC	DE-STRUCTURAL-(	FAILURE MODE-STRUCTURAL-POD BEAM FILLER MATERIAL CRACKED AT INSTALLATIOM.	INSTALLATION.					
CORRECTIVE	ACTION-NONE-N	CORRECTIVE ACTION-NOME-NOT RECEIVED FOR ANALYSIS. PART REPAIR IN THE FACTORY. ANALYSIS CANCELLED.	IR IN THE FACTORY.	AMALYBES CA	WELLED.			
AIRFRAHE-A/B SUBTAINER SECTION	SCTION	A0J62-0114/P1-601-00-21 RETROROCKET	FLIGHT	21F 1	111 320	¥ 6	YES ATLANTIC RESEA NO RCH CORP	999209
FAILURE MODE-FAIL HEM FIRING SIGNAL LY IGNITED BUT BLE		DURING OPERATION. RETROROCKET LOCATED IN VI VERNIER FAIRING FAILED TO CONTRIBUTE TO RETROTHRUST W GIVEN AS EVIDENCED BY LOMER THAN NORMAL TOTAL RETROTHRUST EXPECTED FROM TOTAL OF 4 ROCKETS. PROBAB W OUT AFT END OF ROCKET AND FLAMED OUT AFTER DAMAGING WITING NEARBY.	VI VERNIER FAIRING STAL RETROTHRUST EXP IER DAMAGING WITING	FAILED TO ( ECTED FROM NEARBY.	CONTRIBUT	7. 5. 4.	RETROTHRUST W	
SYSTEM EFFECT-OPE CRET. ALSO EVIDENC VI VERNIER FAIRIN	FECT-OPERATION EVIDENCE OF FILE FAIRING, TOTAL	SYSTEM EFFECT-OPERATION TOO LOM, ONE RETROPOCKET FAILED TO OPERATE AS SUCH. EVIDENCE OF NO RETROTHRUST FROM THIS RO CKET. ALSO EVIDENCE OF FIRING THROUGH BASE PLUG OF RETROPOCKET THUS DAMAGING INSTRUMENTATION MIRING AFT OF ROCKET IN VI. VERNIER FAIRING. TOTAL RETROTHRUST LOWER THEN DESIGN.	OPERATE AS BUCH. EV ET THUS DAMAGING IN	TDENCE OF 1	O RETROT	HRUST F AFT	FRON THIS RO	
VEHICLE, EF	FECT-NOME. SIX	VEHICLE EFFECT-NOME, 31X ITEHS OF INSTRUMENTATION LOST, MISSION SLCCESSFUL.	ISION SICCESSFUL.					
CORRECTIVE ACTION	E ACTION-NONE.						. 44	
AIRFRAHE-A/B BUSTAINER BECTION	CTION	A-99-02-035C POD WIRING BEAM	FAR 7-73238	<b>66</b> 1503	FACTORY	2 6	YES EDON FIBERGLAS	***
FAILURE M	ODE-STRUCTURAL.	FAILUNE MODE-STRUCTIRAL. FCD BEAM FILLER MATERIAL GRACKED AT INSTALLATION, PART WAS NOT RECEIVED FOR AMALYSIS.	IT INSTALLATION. PAN	T WAS 801	IRCE I VED	5	MALYBED.	
CORRECTIVE	CORRECTIVE ACTION-HOME.	THE BEAN WAS REPAIRED IN THE PACTORY.	١,٠					
AIRFRAME-A/B BUBTAIMER SECTION	10110H	SF-99-DE-D39F POD WIRING BEAM	FAR 7-73234-004	461203	PACTORY	2 2	YES ELDON PIBERGLA NO 33	<b></b>
FAILURE HO	XXE-STRUCTURAL-	FAILURE MODE-STRUCTURAL-BEAM MAS CRACKED WITH ONE TIP DETACHED. BEAM MAS WEAK AT AFEA ADJACENT TO NUTS AS A RESULT	HED. BEAM MAS WEAK	AT AF.EA AD.	IACENT TO	K 73	AS A RESULT	
OF EPOXY 7.	LLER ONLY PART	OF EPOXY FILLER ONLY PARTIALLY BURROUNDING NUTS.						

SYSTEM SUB-SYSTEM SUB-	TEST/REPORT NUMBER FALLED COMPONENT NAME FILL TO SECURE THE MUT.		-	34.16	_	
S ALLOWING ADEQUATE EPOXY FILLIFFANE A-8 SUSTAINER SECTION FAILURE MODE-SIRUCTURAL, POD LY, EPOXY HAD BROKEN AMAY FRO		DIF DATA BOURCE FART NUMBER	DATE DIF TIME DIF OTH	11ME 01F	PRI VENDOR NAME OTH VENDOR PART NO	오 보 -
INFRAIE-4/B SUSTAINER SECTION POD FAILURE MODE-STRUCTURAL. POD LY. EPOXY HAD BROKEN AMAY FRO	0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 -					• • • • • • • • • • • • • • • • • • • •
FAILURE MODE-STRUCTURAL, POD LY. EPOXY HAD BROKEN AWAY FRO	POD HIRING BEAM	FAR 7-73833	621208	FACTORY	YES ELDOM FIBERGLA NO 88	RCLA 885300
HAD CNLY PARTIALLY SURRCHADED THE NUT. CORRECTIVE ACTION-RARS A-99-02-3605 A	FAILURE MODE-STRUCTURAL, POD BEAN FILLER MATERIAL CRACKED AT INSTALLATION, OME NUT HAD BROKEN LOOSE PROM THE ASSEMB. LY, EPOXY HAD BROKEN AWAY FROM TWO SIDES OF THE MUT, NUTS ARE RETAINED ON ALL & SIDES BY EPOXY FILLER, EPOXY FILLER HAD ONLY PARTIALLY SURROUNDED THE NUT, CORRECTIVE ACTION-RARS A-99-02-3605 AND 3605-1 MERE ISSUED TO IMPROVE VENDOR QUALITY, ECN 194865 OF JULY 26, 1963 E	T INSTALLATION, ONE E RETAINED ON ALL 6 TO IMPROVE VENDOR 01	NUT HAD B SIDES BY UALITY, EC	ROKEN LOO EPOXY FIL N 194865	SE PROM THE ALLER. EPOXY FIL	8 3 8 8 3 8 8 4 8 8
MLARGED FIBERGLASS WUT HOLE SIZE THE NUT ARE FILLED WITH FILLER.	MLARGED FIBERGLASS MUT HOLE SIZE FROM 0.530 TO 0.620 TO ALLOW DETTER BOND TO THE MUT, ASSURING THAT ALL VOIDS AROUND THE NUT ARE FILLED WITH FILLER.	M DETTER BOND TO TH	E HUT, ABB	URTNG THA	T ALL VOIDS A	gran (
AIRFRAME-A/B SUSTAINER SECTION POD	A-89-02-036F Pod Winimg Bean	FAR 7-76233	\$2120E	FACTORY	YES ELDON FIBERGLA NO 85	RGLA 899318
FAILURE MODE-STRUKTURAL-POD FREE ITSELF FROM THE PARI, TH VOIDS DURING MANUFACTURE,	FAILURE HODE-STRUKTURAL-POD BEAM EPOXY FILLER MATERIAL FOUND BROKEN ON THO SIDEO OF A HEX MUT WHICH ALLOWED MUT TO REE ITSELF FROM THE PART, THIS MAS CAUSED BY THE EPOXY FILLER ONLY PARTIALLY SURROUNDING THE MUT, THUS RESULTING IN VOIDS DURING HANUFACTURE,	FOUND BROKEN ON THO SIDEJ OF A HEK MUT MHICH ALLOWED MUT TO FILLER ONLY PARTIALLY SURROUNDING THE MUT, THUS RESULTING IS	EJ OF A HE URROUNDING	X NUT NHI THE MUT.	CH ALLOWED MU THUS RESULTIN	٥ <u></u>
CORRECTIVE ACTION-COMPIRMED. RAR TAKE RESPONSIBILITY FOR THE CELLS M D.530 TO D.620 INCH AROUND NUT. N. 1848§5 RELEASED 7/26/63.	CCKRECTIVE ACTION-COMFIRMED. HAR A-99-DE-3803 AND 3803-1 MERE ISSUED TO OBTAIN VENDOR IMPROVEMENTS. VENDOR DID MOT TAKE RESPONSIBILITY FOR THE CELLS AROUND THE NUT BEING FILLED MITH EPOXY. GD/A CHANGED DRAMINGS TO EMLARGE HOLES FRO M 0.330 TO 0.620 INCH AROUND NUT, SO SURROUNDING CELLS MOULD BE DEVERED THUS ALLOMING FILL BY EPOXY. CHANGE NAS E.C. M. 1948FS RELEASED T/2E6/83.	RE ISSUED TO OBTAIN D WITH EPOKY, 6D/A ( BE DEVENED THUS ALL	VENDOR THE	PROYEMENT AMINGS TO L BY EPOX	S. VENDOR BID ENLARGE HOLE Y. CHANGE 185	r r r r r r r r r r r r r r r r r r r
AIRFRANE-A/B SUSTAINER SECTION SUS	AC-63-0001/32-605-56-75 SUSTAINER BOOT	CAPTIVE	755	<u>ਲ</u> ਜ ਹ	5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	110011
FAILURE MODE-STRUCTURAL-A MA ING CLIPS.	FAILURE MODE-STRUCTURAL-A MAJOR PRESSURE PULSE OCCURRED AT EMEINE NG CLIPS.	ENGINE START WHICH DAMASED THE SUSTAINER BOOT	DAHASED TH	E SUSTAIN	ER BOOT AND RETAIN	HIAT
SYSTEM EFFECT-LOSS OF STRUCT HOLES IN THE GUAD 3/4 RISE OF	STSTEM EFFECT-LOSS OF STRUCTURAL INTEGRITY. HINOR DANAGE TO SUSTAINER BOOT AND RETAINING CLIPS, AND ELONGATED BOLT OLES IN THE GUAD 3/4 RISE OF PANÉL BRACKET.	SUSTAINER BOOT AND	RETAINING	CLIPS, A	NO ELOWGATED	 5
VEHICLE EFFECT-MONE,-LNZ BHR	VEHICLE EFFECT-MOME, -LNZ SHROUD LEAKS IN THE TRUMMION SASKET.	÷				
CORRECTIVE ACTION-THE BOOSTER ENGI	CORRECTIVE ACTION-THE BOOSTER ENGINE WET START TECHNIQUE TO BE UTILIZED TO ELIMINATE NAJOR PRESSIRE PULGE. RETAININ - CLIPS REPLACED AND BOOT REPAIRED.	BE UTILIZED TO ELI	HINATE MAJ	OR PRESSU	NE PULBE. RET	Z Z

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GENERAL DIMANICS

15 JUN 1966

DIFFICULTIES REVIEW-AIRFRANT SYSTEM-AIRBORNE

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SITE PRI VENDOR NAME TIME DIF OTH VENDOR PART NO		SKIN IN BE T DUNING FIL	REPORTED BY	TRIMG AREA.			_	YDROSTATIC D THE FAILUIBLE BECAUSE	-OE-3DL, UNDER DIRECTION MENTARY ACTION IS NOTED O TANK BRIN WAS REPLACED A	MAGNA MILLS FR 00 AF04-647-907	THRUST COME CAP TO THE CO THE LEARAGE, SEALANT HIXI
FRI OTH	YES 1	N TANK	10CT F	ICAL N	YES NO		F 75	URING P DWF1RW T POSSI	, UNDER ACTION	YES NO	UST COL
	576A-1 350.66	BASE OF	A 81 7.	ELECT		3	FACTORY	10 4 p	-DE-3D1 MENTARY TANK B		25 THR
VEHICLE DATE DIF	159D 621026	AST IHPING	BE FOO ANE	TON POD AND	90F 621020	O AMALYBIS	1520	7, QUAD 3 / ICAL INSPEC USE OF FAIL THIS STATE	CODE HG-88- I GHAL DOCUM ED AREA OF	\$140 <b>30</b>	THE ET-TE
DIF DATA SOURCE PART NUMBER	FLICHT	OF RETROROCKET BL PROBABLY, BLEW CA	SKIN PUNCTURED IN E AREA. OTHENT DISTURBED 1	T EXHAUST GASES FT	FAR 27-73006	SURIZATICA LINE. I BY WELDING AT THE	FAR 27-73006-509	JACENT) AT STA 66". ATIONS, NETALLING INTIFICATION OF CA HITTAL MELDING AT	DIACHOLTIC TEAM. FAILURE. NO ADDIT KRBALLY THAT FAIL	FAR 27-72100-621	BOLTS ATTACHING THE CAP, COUL.
TEST/REPORT NUMBER FAILED COMPONENT NAME	AOJ62-0070/A1-401-00-158 Retrorocket	FAILURE MODE-STRUCTURAL. SUSTAINER TANK DESTROYED AS RESULT OF REIRGROCKET BLAST IHPINGEMENT ON TANK SKIN IN BE POD AREA. THE RETROROCKET IN THE BE POD EITHER EXPLODED OR MORE PROBABLY, BLEW OUT THROUGH BASE OF ROCKET DURING FIRING	STSTEN "FFECT-LOSS OF STRUCTURAL INTEGRITY, SUSTAINEN TARK STIN PUNCTURED IN BE FOO AREA BY FAULTY FIRING OF REINOM Cret Thun Damaging Tary skih and also Burning Wiring in Same Area. Vehicle effg"t-inadventent Lestruction, target vehicle deployment disturbed with excessive tumbling reported by com	CORRECTIVE ACTION-FISERGLASS BAFFLING TO DEFLECT RETROROCKET EMMAUST GASES FROM POD AND ELECTRICAL WIRING AREA.	A-9R-DE-DETC FUEL TAMK, MISSILE	FAILURE MODE-LEAR-EYTERMAL-TANK LEARAGE NEAR FUEL TANK PRE.SURIZATICM LING. MO ANALYBIB WAS MADE. Corrective action-mone-no analybis was made. Part Repaired by Welding at the bite.	H5-99-02-024P Hissile Basic Tank	FAILURE MODE-STRUCTURAL-LEAKAGE AT TEN SPOTMELDS (9 WERE ADJACENT) AT STA 667, QUAD 3 AND 4 DURING HYDROSTATIC LEAK Checks. X-ray inspection revealed 33 additional crack indications. Metallirgical inspection comfirmed the Failure. Crack penetration of parent metal was complete, absolute identification of cause of failure not possible because of Many technical considerations plus the elapsed time bince initial welding at this station.	CCRRECTIVE ACTICA-COMFIRMED BY METALLUNGICAL INSPECTION. A DIACHOSTIC TEAN, CODE HG-99-DE-3DI, UNDER DIRECTION OF P Ilune analysis group was established to determine cause of Failune. No additichal documentary acticn is noted on th s par, however author of the Far, J.H. Brucker has stated verbally that failed area of tank srin was replaced and p ssed inspection.	A-9P-02-023F THRUST COME ASSEMBLY SEALANT	FAILURE MODE-LEAK-EXTERNAL-LEAKAGE OF RP-1 FUEL AROUND THE B BOLTA ATTACHING THE ET-12883 THRUST COME CAP TO THE CO ME ASSEMBLY. THE POROSITY WHICH EXISTED IN THE SEALANT COVERING THE CAP, COULD MAVE CAUSED THE LEAKAGE, SEALANT MIXI MS AND PREPARATION WAS NOT PER SPECIFICATION, MEAVY POROSITY EXISTED.
3797EM \$UB-3797EM	AIRFRAME-A/B	FAILURE MOE-STRUCTURAL AREA. THE RETROROCKET	STRIEN TFECT-LOSS OF SOCKET THEN DANAGING TAND	CORRECTIVE ACTION-F.3E	AIRFRANC-A/B BUSTAINER SECTION	FAILURE MODE-LEAK-EXTE	AIRFRAME-A/B	FAILURE HODE-STRUCTURAL CIECKS. X-RAY INSPECTS CRACK PENTRATION OF PAI MANY TECHHHICAL CONSIDES	CORRECTIVE ACTICAL-COMFIRM AILURE ANALYSIS GROUP WAS IS FAR. NUMEVER AUTHOR OF ASSED INSPECTION.	AIMFRAME-A/B BUSTAINER SECTION	FAILURE MODE-LEAR-EXTERNE ASSENDEY, THE POROSI ME AND PREPARATION WAS

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13 JUN 1966

GENERAL DIMANICS CONVAIR DIVISION

DIFFICULTIES REVIEW-AIRFRAME SYSTIM-AIRBORNE

BITE PRI VENDOR NAME	FICATION M.S. E1-DSA WH TS CH NEW PURCHASE WILL	YES	DEING CRACKED WHEN PLU SIDES. TECH ORDERS DO REQUIRES 35 FOOT-POUND ND TANK.	D IN T. O. 21-3M65F-2-1	492668 ON	Y, AND HISTAKEMLY SENT	YE& CO/C 090021	S OF THE RETAINING LUGS			YES ELDON FIBERGLA NO SS	THER IMPROPER ADJUSTMEN EL CAUSING INCORRECT CA
VEHICLE 81	LY FOLLOW SPECT	47F 620819	WAS DANAGED BY RT, ON OPPOSITE TE E OF DRAWING TWEEN FITTING A	MAS INCORPORATE	47F 620819	MAS SATISPACTON IOUSLT IN FAR-A	73F 82 8E0803	OT MOVED ABOVE			67E WTR 620713	AUNCH DUE TO ES
DIF DATA SOURCE PART NUMBER	C. PERSONICL TO FUL.	FAR 27-7260:1-15	DY A TORISEAL THAT ICES 180 DIGREES APAI ATION PROCEDURE. NO IRVING WELD JOINT BE	N DRAWING 27-73139 IS CHANGE 1-4.	FAR 27-72805-13	TERNINED THAT PLUG IT IN THE WAS REPORTED PREY	CAPTIVE 27-77014-1	EVEALED THAT THE BOO			FAR 87-78178-80	IRING ABSEMBLY AT LI LACEMENT OF COVERB (
TEST/REPORT NUMBER FAILED COMPONENT NAME	RAR A-8P-02-3602 REQUESIED HFG AND Q.C. PERSONINCL TO FULLY FOLLOW SPECIFICATION M.S. 61-D6A WH MIXING. VENDOR REPLY TO VCAR 4293, RECEIVED 2/21/83, STATES THAT ALL PARTS ON NEW PURCHASE WILL LUDE RECURRENCE OF PROBLEM.	A-9L-DZ-DZ1F INSTRUMENTATION PLUG SEAL	FAILURE MODE-STRUCTURAL-LEAKAGE AROUND THE PLUG WAS CAUSED DY A TORUSEAL THAT WAS DAMAGED BY DEING CRACKED WHEN PLU G MAS TOGQUED INTO THE TANK. TGRUSEAL WAS NICKED IN TWO PLACES 18D DIGREER APART, ON OPPOSITE SIDES. TECH ORDERS DO NOT CONTAIN ANY INSTRUCTIONS REGARDING CORRECT PLUG INSTALLATION PROCEDURE. HOTE 2 OF DAAMING REGUIRES 35 FOOT-POUND OF TOGGLE AND TO HOLD FITTING WITH A WRENCH TO PREVENT TORQUING WELD JOINT BETWEEN FITTING AND TANK.	CORRECTIVE ACTION-MO TORUSEAL ACTION IS REQUIRED. NOTE 2 ON DRAWING 27-73139 MAS INCORPORATED IN T. O. 21-5M85F-2-1.	A-SL-O2-023F INSTRUMENTATION PICKUM PLUG	FAILURE MODE-LEAK-EXTERNAL-LEAKED AROUND PLUG. ANALYSIS DETERMINED THAT PLUG MAS SATISPACTORY, AND MISTAKEMLY SEMT To analysis. An adjacent plug ef-72803-13 Mas Faulty, and II 'mas reponted previously in Far-a-bl-de-dei. Corrective actical-mot comptemed, ho action to be taken.	AC-62-0035/82-002-A3-73 SUSTAINER THRUST CHANGER BOOT	FAILURE MODE-FAIL DURING OPERATION. POST TEST HISPECTION REVEALED THAT THE BOOT MOVED ABOVE 3 OF THE RETAINING LUGS IN QUAD 1 AND 2 DURING THE TEST. SYSTEM EFFECT-NOME.		REPAIRED.	A-BO-GR-GISF RETRO ROCKET COVER	FAILURE HODE-ATRUCTURAL. THE COVER SHAPPED OPT FROM THE PAIRING ASSEMBLY AT LAUNCH DUE TO EITHER IHPROPER ADJUSTHEM Of -31 catches by the Vendor, of by Prior Removal and Replacement of Covers by 60/a personnel causing incorrect ca
MATORS MATORS	CORRECTIVE ACTION-1. RAR A-9P-D2-3602 REQUESTED ICH CONTROLS SEALANT HIXING. VENDOR REPLY TO VCA BE INSPECTED TO PRECLUDE RECURRENCE OF PROBLEM.	AIRFRAME-A/B SUSTAINER SECTION	FAILURE MODE-STRUCTURAL-LI 6 MAS TORQUED INTO THE TAN NOT CONTAIN ANY INSTRUCTION OF TORQUE AND TO HOLD FIT	CORRECTIVE ACTION-HO TORUS a, T. O. SHGSE-Z-18 AND OT	AIRFRAME-A/B SUSTAINER SECTION	FAILURE MODE-LEAK-EXTERNAL TO AMALYSIS. AM ADJACENT PI CORRECTIVE ACTICALMOT COME	AIRFRAHE-A/B SUSTAINGR SECTION	FAILURE MODE-FAIL DURING CPERATI IN QUAD 1 AND 2 DURING THE TEST. SYSTEM EFFECT-NOME.	VEHICLE EFFECT-NONE.	CORRECTIVE ACTION-BOOT REP	AIRFRANE-A/B BUBTAINER SECTION R	FAILURE MODE-STRUCTURAL, T T OF -31 CATCHES BY THE VER

15 JUN 1966

DIFFICULTIES REVIEW-AIRFRAME SYSTEM-AIRBORNE

		80808			896257						
VEHICLE SITE PRI VENDOR NAME DATE DIF TIME DIF OTH VENDOR PART NO	GFENLY ADJUSTE 0/5/42). E. AL /62. AN INSPEC		6), THUS PREVE	MENTED BY CAR EFLECT THREAD AL ORDER COMPA		EDLINE VALUE O	SECONDS AND 3	E REDLINE LINI	ENGINE HYPERGO		TRIBUTED TO 8
# 5 # 5	# 3 × 1	<b>5</b> 5	2 2 1	(Becu To R CHRIC	5 <u>2</u>	S S	8.03	5	Š.	<b>2</b> 2	7
317E 71HE 01F	T LAUNCH.  CATCHES A  NR 1816-6;  107-62 ON	MTR	ROPER HAC	EVIEWED. D DRAWING ASSURE TE	3-6 4:71	SED 11 UP	AT PLUS	HE EXCEED	THE SUSTA	=	EST. PROB
VEHICLE DATE DIF	DOED. (VC)	57F 620703	EADS (IMP	DUES BE RI SO CHANGEO DEPT TO	59F GE0424	E, SUMPAS	H, ESO DG	TEMPERATU	B-MUT ON '	7F 620124	TAIK 116 TI
DIF DATA SOURCE PART NUMBER	RIBUTED TO DAMAGE O REQUESTED TO ASS INSPECTION SEALS A	FAR 27-72605-13	D BY ECCENTRIC THR	D MACHILING TECHNI ANT PARTA. ECH 250 APORT PUDLICATIONS	CAPTIVE	IRONNCHT TENVERATUR	) 49 OGF AT 1641TEO	GMITTED WIEN THE	IMPROFERLY TORRUED IRTRIDGE WAS BUBBLE	COMPUST IE-FRD/DPL 27-72518-7	COME FLANGE AFTER
TEST/REPORT HUNBER FAILED COMPONENT NAME	TCH ADJUSTHENT. COVER MAS FOUND MARPED AND BEHT, THIS MAS ATTRIBUTED TO DAMAGE BY FALL AT LAUMCH.  CORRECTIVE ACTICM-1. VENDOM MAS INFORMED OF FAILURE CAUSE AND REQUESTED TO ASSUME THAT CATCHES ARE PROFERLY ADJUSTE  D. (KAR A-90-02-612), PARTS IN VENDOR STOCK WERE CAECKED AND INSPECTION SEALS ADDED. (VCAR 1816-62 OF 9/5/62), 2. AL  L COVERS IN GD/A CUSTODY WERE CHECKED FOR PROPER ADJUSTMENT AND INSTALLATION PER SURVEY 107-82 ON 8/26/62. AN INSPECTION DECAL WAS PLACED ON COVER OVERLAPPING ADJACENT STRUCTURE.	A-9D-02-015 INSTRUMENTATION PICKUP PLUG	FAILIRE MOCE-LEAK-EXTERNIL-AROUND PROFELLANT TAHK PLUG CAUSED BY ECCENTRIC THREADS. (IMPROPER MACHINING), THUS PREVE ITING O RING SEAL.	CGRECTIVE ACTION-(1.) RECOMMENDED THAT VENOCR INSPECTION AND MACHINING TECHNIQUES BE REVIEWED. (DOCUMENTED BY MAR A-91-02-611). (2.) GOZA PURGED STOCK AND REJECTED ALL DISCREPANT PARTA. ECH 20130 CHANGED DRANING TO REFLECT THREAD AND PITCH TOLERANCES. (3.) GOZA TRANS- NITTED THIS DATA TO SUPPORT PUBLICATIONS DEPT TO ASSURE TECHNICAL ORDER COMPA TIBILITY.	AEG2-0352/32-601-A1-59	FAILUKE HODE-OUT OF TOLERANCE. P1710T. SUSTAINER ENGINE ENVIRONNEHT TENPERATURE, SURPASSED IT UPPER REDLINE VALUE 250 DGF.	8YSTEM EFFECT-MIGH TEMPERATURE ENVIRONMENT. PITIOT INDICATED 49 DGF AT IGMITION, RSO DGF AT PLIS 3.03 SECONDS AND 3 3 DGF AT CUTOFF.	VEHICLE EFFECT-PRE-MATURE PRODULBION CUTOFF. THE TEST WAS TERMITATED WIEN THE TEMPERATURE EXCEEDIGG THE REDLINE LIMI.	CORRECTIVE ACTION-THE PRIMARY FAILURE, WHICH WAS DUE TO AN IMPROFERLY TORBUED B-NUT ON THE SUSTAINER ENGINE MYPERSO Lic cartaidse comiaires discharge Port, was corrected. The cartaidge was subsequently replaced.	AA62-UUT4/PI-6BN-01-UT APEX COME PLANGE, BEAL	FAILURE MOCC-LEAK-EXTERNAL, BEEFING FUEL LEAK FOUND AT AFEX COME FLANGE AFTER TAINING TEST, FROBLEN ATTRIBUTED TO B D BEAL, excessive lubricant found on Beal,
SYSTEM SUD-SYSTEM	TCH ADJUSTHENT. COVER WAS CORRECTIVE ACTICN-1. VEID D. (KAR A-9D-02-612), PART L COVERS IN GD/A CUSTODY IN TION DECAL WAS PLACED ON C	AIRFRANE-A/B SUSTAINER SECTION	FAILURE MOCE-LEAK-EXTERNA NTING O RING SEAL.	CGERECTIVE ACTION-(1.) RE A-91-02-611). (2.) 60/A PV AND PITCH TOLERAHCES. (3.) TIBILLITY.	AIRFRANE-AZB BUSTAINER SECTION	FAILURE HODE-OUT OF TOLER	8YSTEM CITECT-MIGH TEMPER 13 DGF AT CUTOFF.	VEHICLE EFFECT-PRE-MATURE	CORRECTIVE ACTION-THE PRI	AIMFRANC-A/D BUBTAINER SECTION	FAILURE MOCC-LEAK-EXTERNAL, SEEPING PUEL I AD SEAL, EXCESSIVE LUBRICANT FOUND ON SEAL

VEHICLE EFFECT-MOME. TANKING TEST MAS RESCHEDULED FOR ANOTHER REASON.

BYSIEM EFFECT-NONE.

13 JUN 1966

# GENERAL DYNAHICS CCAVAIR DIVISION

CORRECTIVE ACTION—SEAL WAS REPLACED, MICH REQUIND LOWERING BUILDINGS ENGINE AND AFLY CONF.  ARREANCE ALD  SUSTAINER SCOTICH  THAULATION—EULKHEAD  TAILUSE WODE—STRUCTURAL. A CHACKED WHICH EULKHEAD  TO STRUCTURAL. A CHACKED WHY-STRUCTURAL ALUMINUM SHELL INSULATION BULKHEAD WAS DISCOVERED ON FIRST X-1 DA  Y.  STRICK EFECT—COSM TO STRUCTURAL. INTEGRITY.  VEHICLE EFFECT—COSM TO STRUCTURAL INTEGRITY. ARM POD AFT BULKHEAD  STRIPE STREET TO CORREY TO PRESCRIBED THE. FAILURE OF UNBILICAL PLUG GOOUT TO ELECT EITHER ELECTRICALLY OF  STRIET STREET.—LOSS OF STRUCTURAL INTEGRITY. ARM POD AFT BULKHEAD WHY RUBILICAL CABLE TIGHTENED DURING HISSILE RISE—OFF  STRIET STREET.—LOSS OF STRUCTURAL INTEGRITY. ARM POD AFT BULKHEAD WHY RUBILICAL CABLE TIGHTENED DURING HISSILE RISE—OFF  STRIET STREET.—LOSS OF STRUCTURAL INTEGRITY. ARM POD AFT BULKHEAD WHY FROM POD DOOY AS VEHICLE LIFED O  STRIET STRUCTURAL ACTION—UNROAN.  ATHERBACE—ADMORMALITIES NOTED DURING FILEN YERE ATTRIBUTED TO THE DAMORE INCURRED BY THE POD.  COMBECTIVE ACTION—UNROAN.  ATHERBACE—ADMORMALITIES NOTED DURING FILEN YERE ATTRIBUTED TO THE DAMORE INCURRED BY THE POD.  COMBECTIVE ACTION—UNROAN.  ATHERBACE—ADMORMALITIES NOTED DURING FILEN YERE ATTRIBUTED TO THE DAMORE INCURRED BY THE POD.  COMBECTIVE ACTION—UNROAN.  ATHERBACE—ADMORMALITIES NOTED DURING FILEN YERE ATTRIBUTED TO THE DAMORE INCURRED BY THE POD.  COMBECTIVE ACTION—UNROAN.  ATHERBACE—ADMORMALITY OF THE TOTAL YERE ATTRIBUTED TO THE DAMORE INCURRED BY THE POD.  COMBECTIVE ACTION—OF STRUCTURAL THE POD TO THE DAMORE INCURRED BY THE POD.  COMBECTIVE BY THE POD TO THE DAMORE INCURRED BY THE POD TO THE DAMORE INCURRED BY THE POD.  COMBECTIVE TO THE TOTAL THE POD TO THE DAMORE INCURRED BY THE P	TEND APEX COME.  IEND APEX COME.  SEDIOS IR YES  SEDIOS HOME HOME.  TED IN ABOUT 48 HOME.  SEDUT TO EJECT EITHER ELECTRICALLY OR ABLE TIGHTENED DURING MISSILE RISE-OFF  AMAY FROM POD DODY AS VEHICLE LIFTED O  THE DAMAGE INCURRED BY THE POD.
ASSECTION ASSECTIONS  THOU INSULATION-EURHEAD COUNTROWN  THOU INSULATION-EURHEAD COUNTROWN  ECT-LOSS OF STRUCTURAL INTEGRITY.  ECT-LOSS OF STRUCTURAL INTEGRITY.  THOU ACTION-REMOVED INSULATION BULKHEAD REMOVAL WAS COMPLETED ACTION-REMOVED INSULATION BULKHEAD REMOVAL WAS COMPLETED TO GREATE AT PRESCRIBED TIME. FAILURE OF UNGILICAL PLUGANISED TO GREATE AT PRESCRIBED TIME. FAILURE OF UNGILICAL PLUGANISED SEVERE DEFORMATION OF ARMA POD AFT BULKHEAD WAS FULLED TO APPRAISE TO MORBAL PONTION AFTER UNDILICAL PELEABED.  ECT-HOME. WO ADMORMALITIES NOTED DURING PLICHT VERE ATTRIBUTED TO ACTION-UMRNOWN.  CT-98-02-001F  FAR  TITING-DISCONMECTABING FAR  TITING-DISCONMECTABING BY-133ED-1	E YES  100  DISCOVERED ON FIRST X- 48 HOLMS.  TES  TES  TO DURING HISSILE RISE  D DODY AS VEHICLE LIFT  MCURRED BY THE POD.
ECT-LOSS OF STRUCTURAL INTEGRITY.  ECT-COUNTDOWN RESCHEDULED. INSULATION BULKHEAD REMOVAL WAS COMPLETED TO COMPLETED TO COPERATE ARMA POD AFT BULKHEAD. (PFAR-AIRES)  AERI-OTSO.  ARMA POD AFT BULKHEAD  FLIGHT  ARMA POD AFT BULKHEAD  CT-COSS OF STRUCTURAL INTEGRITY. ARMA POD AFT BULKHEAD WAS FULLED  ARMA POD AFT BULKHEAD  APPEARED TO COPERATE AT PRESCHIBED TIME. FAILURE OF UNBILLICAL PLUG  CAUSED SEVERE DEFORMATION OF ARMA POD AFT BULKHEAD WAS FULLED  APPEARED TO RECOVER TO NOMBAL POSITION AFTER UNDILICAL PELEABED.  ECT-NOWE. WO ADINCPURALITIES NOTED DURING PLICHT VERE ATTRIBUTED TO  ACTION-UNKNOWN.  CT-08-02-001F  FAR  FILTING-DISCONNECTABING FAR  FAR  FAR  TITING-DISCONNECTABING FAR  FAR  FAR  THE THE CT-NOWER STRUCTURAL STRUCTURAL PROPERTY.  FAR  FAR  FAR  THE THE CT-NOWER STRUCTURAL STRUCTURAL PROPERTY.  FAR  FAR  FAR  FILTING-DISCONNECTABING FAR  FAR  FAR  FAR  FAR  FAR  FAR  FAR	DISCOVERED ON FIRST X- 49 HOLMS.  T NO YES  CT EITHER ELECTRICALLY ED DURING MISSILE RISE  MURRED BY THE POD.
TECT-LOSS OF STRUCTURAL INTEGRITY.  TECT-COUNTDOWN RESCREDULED. INSULATION BULKHEAD REMOVAL MAS COMPLET  ACTION-REMOVED INSULATION BULKHEAD. (PFAR-AIRID)  AREA-OTROY  ARMA POD AFT BULKHEAD  TLICHT  ARMA POD AFT BULKHEAD  TLICHT  TLICHT  ARMA POD AFT BULKHEAD WAS TULLED  TO OPERATE AT PRESCRIBED TIME. FAILURE OF UNBILLICAL PLUG  TALSOS OF STRUCTURAL INTEGRITY. ARMA POD AFT BULKHEAD WAS TULLED  APPEARED TO RECOVER TO MANALA PODITION AFTER UNDILICAL PELEABED.  TECT-NOWE. WE ADMOCPHALITIES NOTED DURING PLICHT MERE ATTRIBUTED TO  ACTION-UNRINDAM.  CT-98-02-001F  FIRTING-DISCONMECTABIAGINS  ETHON  TITING-DISCONMECTABIAGINS  ETHON  TITING-DISCONMECTABIAGINS  ETHON  THE TITING-DISCONMECTABIAGINS  ETHON  THE TITING-DISCONMENTABIAGINS  THE TITI	49 HOLMS.  1 NO TESTHER ELECTRICALLY ED DURING MISSILE RISE D DODY AS VEHICLE LIFT MCURRED BY THE POD.
ACTION-REMOVED INSULATION BULKHEAD. (FFAR-AIRI9)  AEEL-0799/ ARMA PCO AFT BULKHEAD  ELT-LED TO CHERATE AT PRESCRIBED TIME. FAILURE OF UMBILICAL PLUG- EAUSED SEVERE DEFORMATION OF ARMA PCD AFT BULKHEAD UMBILICAL OF APPRAISED SEVERE DEFORMATION OF ARMA PCD AFT BULKHEAD UMB. TULLED  APPRAISE TO RECOVER TO MANAL POSITION AFTER UMBILICAL PELEASED.  ECT-NOME. WO ADMORMALITIES NOTED DURING PLICHT YERE ATTRIBUTED TO ACTION-UMBNOM.  CT-98-02-001F  FAR  FIRTING-DISCONMESTABINS  ETHOR	49 HOMS.  1 10  TESTHER ELECTRICALLY  ED DURING MISSILE RISE  D DOOY AS VEHICLE LIFT  MCURRED BY THE POD.
ACTION-REMOYED INSULATION BULKHEAD. (PFAR-AIRI9)  AREA-0799/ ARMA POO APT BULKHEAD  FLICHT  ARMA POO APT BULKHEAD  FLICHT  FLICHT  ARMA POO APT BULKHEAD  FLICHT  FAR  FAR  FAR  FAR  FAR  FAR  FAR  FA	TES
AFEE-0799/ ARMA PGO AFT BULKHEAD  CHOSED SEVERE DEFORMATION OF ARMA PGO AFT BULKHEAD MASH UNBILLICAL CAUSED SEVERE DEFORMATION OF ARMA PGO AFT BULKHEAD MAS FULLED OF STRUCTURAL INTEGRITY, ARMA PGO AFT BULKHEAD WAS FULLED OF SPREARED TO RECOVER TO MOSMAL POSITION AFTER UNDILLICAL PELEABED, ACTION-UNKNOWN.  CT-98-02-001f FITTING-DISCONMECTABIAGINS  E7-739ED-1	TESTINER ELECTRICALLY ED DURING MISSILE RISE D DODY AS VEHICLE LIFT NCURRED BY THE POD.
DE-FAILED TO CRERATE AT PRESCRIBED TIME, FAILURE OF UMBILICAL PLUG CAUSED SEVERE DEFORMATION OF ARMA POD AFT BULNHEAD UMBILICAL CELTALOSS OF STRUCTURAL INTEGRITY, ARMA POD AFT BULNHEAD WAS FULLED APPEARED TO RECOVER TO MORMAL PODITION AFTER UMBILICAL PELEASED, FECT-NOWE, WE ADMICHALITIES NOTED DURING PLICHT WERE ATTRIBUTED TO ACTION-UMBNOWN.  CT-98-02-001F FAR FITTING-DISCONMECTASTABINS FAR FAR	CT EITHER ELECTRICALLY ED DURING MISSILE RISE D DODY AS VEHICLE LIFT MCURRED BY THE POD.
ELTALOSS OF STRUCTURAL INTEGRITY, ARMA POD AFT BULKHEAD WAS FULLED  APPEARED TO RECOVER TO MORIAL POSITION AFTER UNDILECAL PELEASED,  ECT-HOME, WO ADMORMALISTES NOTED DURING PLICHT YERE ATTRIBUTED TO  ACTION-UMRNOWN.  CT-98-02-001F  FAR  FILLING-DISCONMECTASTAGINS  ETTING-DISCONMECTASTAGINS  ETTING-DISCONMECTASTAGINS	D DODY AS VEHICLE LIFT MCURRED BY THE POD.
ACTION-UNE	MCURRED BY THE POD.
ACTION-UNK NOWN.  CT-88-D2-D01 FAR  CT-88-D18CONUMECT, \$7851N5 E7-73520-1 611024	
CT-98-02-001F TITING-DISCOMMESTIBING 27-73500-1 611024	
	# YES
FAILUNE MODE-STRUCTURAL. SEVERE CORROSION FROM ENINAPPED NATER DUE TO INADEGUATE FROVISION FOR DRAINING VATER, MISS ILE HAJ BECN AT ETE TEN MAIHS-HOST OF THIB.IN THE SERVICE TOWER. THE ONE SECTION OF THE FITTING THAT HAD A DRAIN HO LE HAD ALMOST NO CORROSION.	h for draihing water. Itting that had a drai
CORRECTIVE ACTION-1. GO/C INITIATED A DESIGN STUDY TO CONSIDER ADDITIONAL DRAIN HOLES. E. ON OCT 4-1962 A DRAWING C HANCE LAS MADE ON 27-73520 GREATING -5, THE BANE AS -1 EXCEPT FOR AN IMPROVED FINISH. THE SAME CHANGE MAS ALSO HADE ON THE OPPOSITE FANT, 27-73519. S. THIS DATA WAS TRANSMITTED FOR USE IN APPLICABLE TECHNICAL GROSSS.	ON OCT 4-1962 A DFAMI SANC CHANGE MAS ALSO H AL CADERS.
AIRFRANE-A/D AASI-DIGI/PS-4CMO-DS-1D4/CE COMPOSITE-FRD/DPL 1D40 354 sustainer section tono 35aL flames	364 YES
FAILURE HODE-LEAK-EXTERNAL, A FUEL LEAK OCCURRED AT THE POD I TORDERAL FLANGE DURING AEQUENCE II PRESSURIZATION.	ENCK 11 PAKSSURIZATION

VEHICLE SITE PRI VENDOR NAME DATE DIF TIME DIF OTH VENDOR FART NO

DIF DATA SOURCE PART NUMBER

SYSTEM EFFECT-NONE. THE FUEL WAS DRIPPING ON THE MAIN MISSILE BATTERY.

FAILED COMPONENT NAME

316-818H

707

IEST/REPORT NUMBER

WEHICLE EFFECT-COUNTDOWN DELAYED. HOLD TIME 130 MINUTED.

CORRECTIVE ACTION-STOPPED LEAK WITH A PUTTY PATCH.

DIFFICULTIES REVIEW-AIRFRAME SYSTEM-AIRDORNE

GENERAL DYNAHICS CONVAIR DIVISION

00720

**1** 2

12.

22E 610708

7.191 AEGI-DB42P3-501-DG-22 VERNIER E FAIRING

BUSTAINER SECTION

A ! RFRANE -A /B

FAILUKE WODE-OUT OF EXPECTED TEST VALUE, THE TEMPERATURE OF THE APT SURFACE OF THE VERNIER 2 FAIRING ROSE TO 1136 D EG F. STARTING AT 47 SECONDS AND REACHING THE NIGHEST POINT AT 100 SELONDS. TEMPERATURES INSIDE THE FAIRING ALSO ROS E TO APPROX 600 DEG F. IN A SINILAR HANNER.

SYSTEM EFFECT-HIGH TENPERATURE ENVIRONMENT. THE HIGH TEMPERATURE WAS APPRENTLY A RESULT OF SHOCK CONDITIONS OFF THE CLANNMELL OR STAGNATION TENPERATURES AT THE FORMAND BIDE OF THE VERNIER FINGING POST. THIS MOT AIR ALSO AFFEARED TO ENTER THE FAIRING AND FLOM OUT THE AFT END.

VEHICLE EFFECT-NONE, NO EFFECT UPON VEHICLE,

CORRECTIVE ACTION-A CHANCE HAS BEEN MADE IN THE SEAL AROUN) THE VERNIER ENGINE POST TO PHEVENT HOT AIR FLOW THRU TH E FAIRING. CHANGE WILL BE EFFECTIVE FOR 32E AND ON.

AESD-09367P3-501-00-UP NUSTAINER SECTION

**666131** 

Ş # 3

9E 6:0224

FLIGHT

FAILURE MODE-OUT OF EXPECTED 1831 VALUE-AMBIENT TENDERATURE WITHIN THE VZ VERNIER EMEINE FAIRING (NACELLE) REACHED A MAXIMUM OF 837 DESIRES F AT 110 SECONDS DUE TO INADERUATE PROCESTOR HIGH VELOCITY AIRSTREAM.

ATTEN EFFECT-HIGH TEMPERATURE ENTRINGMENT- TELEMETRY DATA INDICATED THAT VE VERNIZH FUTIM, DRIFTED ONE DEGNEE IN P ITCH. THIS INDICATION WAS ATHIBUTED TO AFROOVAMIC HEATING OF EITHER THE TELEMETRY TRANDICKER ON THE FEEDDACK TRANS DUCER LOCATED WITHIN THE VERNIER FAIRING. VEHICLE EFFECT-MONE. THE INDICATED GRIFT HAD NO APPARENT EFFECT ON VEHICLE PERFORMANCE. THE RE-FINIRY VEHICLE IMPACT ED IN THE PLANNED TAPCET AREA. CORRECTIVE ACTION-FUTURE VEHICLES WILL HAVE PRODUCTION TYPE COVER PLATES OVER THE VERNIER PITCH CLAMBHELL FAIRING C LEARANCE CUTCUTS TO DECREASE RERODYNAMIC IMPINGENCHT INSIDE THE PAIRING MILLE THE VERNIERS ARE AT THE FITCHOVER POSS . 8 2

EVSTATIVER SECTION A SRFKAME-A/B

88-02-008 LATCH FITTING, AIG NOD DOOR

612019 FAR 27-72341-13

<u>د</u> و

FAILURE WOOL-STRUCTURAL-POD COVER LATCH FITTING CENTER LUG WAS BRCAEN DUE TO OVERSTRESSING. THE IMPERENT PLEXIBILITY OF THE COVEN, WITH MISSILE HORIZONTAL, CONTRIBUTED TO LATCH HISALIGNMENT. FAILURE TO ARBURE PROPER ALIGNMENT, REPEATABLY, PROBASLY CAUSED THE FAILURE, ALSO COVERED ON FAR IS -IS AND -IT.

PASE DOS4

18 104 1864

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							the same of the sa		
	CORRECTIVE ACTION-CONVAIR INSTRUCT	CCARECTIVE ACTICM-COMVAIR INTRUCTED PERSONNEL TO ASSURE LATCH ALIGNMENT BURING OPERATIOM. FITTINGS ANT REINSPECTED IN FINAL INSPECTION FOR ALIGNMENT.	URE LATCH ALIGNHENT DUS	ITHE OPERATIO	ž .	NCS AK	REINSPEC		03722
	AIRFRANC-AZO BUSTAINER SECTION	98-02-009 LATCH FITTING, AIG POD DOOR	FAR 87-72841-13	600 610215	£13	<b>\$</b> 0			13166
	FAILURE MODE-STRUCTURY OF THE COVER, WITH BY ATABLY, PRODABLY CAUSE	FAILURE MODE-STRUCTURAL-POD COVER LATCH FITTING CENTER LUG WAS BROKEN DUE TO OVERSTRESSING. THE 17 MEMBENT FLEKIBILITY OF THE COVER, WITH HISSILE MORIZONTAL, COMTRIBUTED TO LATCH HISALIGNMENT, FAILURE TO ASSURE PROPE) ALIGNMENT, REPE ATABLY, PRODABLY CAUCED THE FAILURE, ALSO COVERED ON FAR IS -15 AND -57.	R LUG MES BROKEN DIEE TO O LATCH HISALIGHHENT, I AR IS -15 AND -17.	TO OVERSTRESSING, THE SCHERENT PLEKIBLLIT FAILURE TO ASSUME PROPES ALIGHMENT, REPE	NG. THE	I: HERED PE: ALI	I FLEKIBI GNMENT, R	# # # # #	
	CORRECTIVE ACTION-CONVAL	CORECTIVE ACTION-CONVAIR INSTRUCTED PERSONNEL TO ASSURE LATON ALIGNAENT DURING OPERATION, FITTINGS ARE REINSPECTED In Final in Spection for alignaent.	URE LATCH ALIGHMENT DUF	NW OPERATIC	N. FITTI	NGS ARE	REINSPEC	91	
	AIRFRAME ATB	98-02-011 STRAP ASSEMBLY-CANISTER	FAR 27-72424-1	13E 010213	ETR	7 ES			*****
	FAILURE MODE-STRUCTUR TRAP MAS NOT. THE PROJ ING SYSTEM COLLECTS AN	FAILURE MODE-STRUCTURAL-CANISTER STRAF FAILLO WHEN CANISTER WAS REMOVED FOR THE FIRST TIME, CANISTER WAS COGRODED S KAP WAS NOT. THE PROTECTIVE COATING ON THE CAHISTER WAS BROKEN DURING INSTALLATION, MOISTURE FROM THE AIR-COMDITION NG SYSTEM COLLECTS AND DRIPS ON CAHISTS AND ON CLAMMS STATING CORROSION. COMBETCHING ACTION-DURANTHER OF CAHISTS AND STANDES WHIL BE DEVISED TO ABBLY STRADS GREAGE TO THE SMAIDE OF CAMISTER &	NISTER WAS REWOVED FOR AS BROKEN DURING INSTAN IS STARTING CORROSION.	LATION. HOLS	IME, CANI	31ER W	S CORFOUE IR-COMDIT	# * ·	
	ROLL LAND HELL MAN WATER	EN SADDLE AREA IS PERUIRED TO DE LUBRICATED NOW .	LUBTICATED NOW.						
		AC-41-0085/32-502-A2-00 8USTATNER BOOT	CAPTIVE	702019 33	8 <b>Q</b>	7E8 62	- 3/09		09000
	FAILURE MODE-STRUCTUR	FAILURE MONE-STRUCTURAL-A SMALL TEAR AN THE SUSTAINER RADIFTION BOOT WAS NOTED BY AING POST TEST VISUAL INSPECTION.	RADILITION BOOT WAS HO!	ED 11.31NG PC	1631 TA	VI SUAL	INSPICTIO	<b></b>	
*****	SYSTEM EFFECT-MIGH TEN	SYBIEH EFFECT-HIGH TEN ZRATUZE ENVIRCAMENT-MIGH TEMERATURE E VII ONICH. IN THE BUSTAIMEN COMPAN WENT, BUSTAIMEN EMG Me ambient temperature (pissst) Rose to 138 degrees F. at at at recomba.	RATURE ENVISORER. IN 1	HE SUSTAINER	COMPAN	WENT. 8	USTAIMER	\$	
***************************************	VEHICLE EFFECT-NOME.								
	CORRECTIVE ACTION-REPL	-REPATH BOOT.							
	AIRFRAME-A/D BUBTAINER BECYLON	AESG-0955/PS-503-00-00 VERNIER FAIRING	FLIGHT	9E 6101E4	. : : : : : : : : : : : : : : : : : : :	<b>:</b> 9			

15 JUN 1946

9901 NOT SI	DIFFICULTIES REVIEW-AIRFRAME BYSTEM-AIRBORNE	RAME SYSTEM-AIRBORNE				
#1616# #00-9761#	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA BOURCE PART NUMBER	VEHICLE DATE DIF TI	BITE PRI TIME DIF OTH	VENDOR HAME VENDOR PART NO	
	cutout.					******
VEHICLE EFFECT-LOSS OF W	UM TENTERATURE, ENVIRONHENT. - OSS OF VEHTCLE STABILITY. VEHTCLE STABILITY MAS LOST AFTER BOOSTER CUTOFF. STABILITY LOST AT 160.9 - AINER SHUTDGARA AT E47.7 SECONDS.	MAS LOST AFTER BOOM	TER CUTOFF.	87AB1L1TY	LOST AT 180.9	~ <del>~~~~</del>
CORRECTIVE ACTION-INSTALL	CORRECTIVE ACTION-INSTALL CHRRENT LIMITING RESISTORS IN VERNIER CIRCUITRY. ADDED PROTECTIVE COVER TO VERNIER ENGINE, REVISED VERNIER MIRING INSULATION TO COVER THE VERNIER VALVE AND CONNECTOR.	NIER CIRCUITRY, ADDE VE AND CONNECTOR,	D PROTECTIV	E COVER TO	VERNIER ENGINE	
AIRFRANC-A/D BUSTAINCR SECTION	AEGO-095E/PE-40E-00-81 LOX TAIR	FLIGHT	E1D 12 601215 67	5 E	CONVAIR	4
FAILURE MODE-STRUCTURAL. OST LIKELY FROM THE BLAST	FAILURE OF THE HISSILE LOM TANK BANG WHICH FAILED DUE TO EITHER	DUE TO FRACHENTS FALLING FROM THE UPPER STACE. FRACHENTS IN SAND FLUITER OR OVER PRESSURIZATION.	NG FROM THE RESSURIZATI	UPPER BTA	GE. FRACHENTO H	
SYSTEM EFFECT-LOSS OF STRUCTURA CHADS LOX FLASHED TO ATMOSPHERE.	SYSTEM EFFECT-LOSS OF STRUCTURAL INTEGRITY. LOX TANK PRESSURE DECREASE TO D PSI WHEN THE TANK RUPTURED AND 40,000 P UMDS LOX FLASHED TO ATMOSPHERE.	NE DECREASE TO A PSI	WEN THE T	NK RUPTUR	ED AND 40,000 P	
VEHICLE EFFECT-LOSS OF M	.css of Winicle integrity. Six seconds after the Tank Pultured, the Missile Exploded.	THE TANK PUNTURED,	THE MIBSILE	EXFLODED.		
CORRECTIVE ACTION-NONE.						
AINFRANG-A/B BUSTAINGR SECTTON	AC-60-0030/31-511-A7-03 SUST. THRUST CHANG. BOOT	CAPTIVE 27-77011-1	5E \$1	2 Y	7E3 60/C NO	600073
FAILURE MONE-STRUCTURAL.	FAILURE MONE-STRUCTURAL. SUSTAINER BOOT WAS DAMAGED BURING ENGINE OPERATION.	ENGINE OPERATION.				
SYSTEM EFFECT-NONE- THREE	SYSTEM EFFECT-NOWER THRUST SECTION THSTRIBERTATION BID NOT INDICATE A HIGH TEMPERATURE ENVIRONMENT.	INDICATE A MIGH TEM	ERATURE ENV	I ROWENT.		
MENICLE EFFECT-HONE.						
CONFECTIVE ACTION-BOOT INS IRC.	45 IAC.					
AIRFGANG-A/D BUSTAINER SECTION	AC-CO-DOJ7/82-511-A5-D2 SUST, THIUST CHAMBER BODT	CAPTIVE 27-77011-1	\$6 1000 88	4E3	TES 60/C HO	17988
FAILURE MODE-FAILURE PUR ING INSPECTION.	LURE DUNING OPERATION- SUBTAINER BOOT BLIFFED UP ABOVE THE CHANDER LUGS. DISCOVERED DURING POST FIR	ED IM ABOVE THE CHAI	DEN LUGS. B	1 SCOVERED	DURING POST FIR	
BYSTEM EFFECT-MOME.						
VEHICLE EFFECT-NOME.						
CORRECTIVE ACTION-UNKNOWN.						

19 1UN 1866

	DIFFICULTIES REVIEW-AIRFRAME SYSTEM-AIRBORNE	RAME SYSTEM-AIRBORNE					
STOTEM SUB-STOTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA BOURCE PART MUHBER	VEHICLE DATE DIF	31TE 1HE DIF	VEHICLE SITE PRI VENDOR MANE.	HANE ART NO	
AIRFRAME-A/B BUSTAINER SECTION	ETR-DES/14-3E3-HE-BE SUST THRUST CHAMBER BOOT	CAPTIVE	601008	7	768 40/C NO		
FAILURE MODE-STRUCTURAL-	FAILURE MOE-STRUCTURAL- THE BOOT WAS TORN LOOSE DURING THE TEST. DISCOVERED DURING POST FIRING INSPECTION.	TEST. DISCOVERED DE	RING POST	FIRING	NSPECTION.	,	
SYSTEM EFFECT-NONE.							
VEHICLE EFFECT-NOME.							
CORRECTIVE ACTION-UNKHOWN.	÷						
AIFFRANC-A/B	AC-60-0035/22-307-A3-02 BETHRUST CHAMD. BOOT	CAPTIVE	2E 400623	84	7ES 60/C NO		14000
FAILURE MOE-STRUCTURAL.	FAILURE HOE-STRUCTURAL. BE BOOT BECAME UNFASTENED ALONG THE AXIAL BEAM.	E AKIAL BEAM.					
SYSTEM EFFECT-HIGH TEMPE NAS INDICATED.	SYSTEM EFFECT-HIGM TEMPERATURE ENVIRONMENT. BE MACELLE AMBIENT, PITIET, EXCEEDED REDLIME AT TO SECOMOS WHEN 172 DGF Mas indicated.	ENT, P1712T, EXCEEDE	D REDLINE	AT 70 M	CONDS NHEN	72 O SF	
VEHICLE EFFECT-PRENATURE PROPULATION CUTOFF.	: PROPULSION CUTOFF,						
CORRECTIVE ACTION-UNKNOWN.	ë						
AIRFRANE-A/B SUSTAINER SECTION	AEGD-0923/P4-AG2-GD-5G LOX TANK	FLIGHT	300 600729	14 97	NO YES		691168
FAILURE MODE-STRUCTURAL, ATLAS LOX TANA MAS R T ADAPTER TESTS BY MEDCHWELL SHOWED THAT ADAPT AT ADAPTER FAILURE (ED TO RUFTURE OF LOM TANA.	FAILUKE MOVE-STRUCTURAL, ATLAS LOX TANK MAS RUPTURED AS RESULT OF POSSIBLE FAILUKE OF HODOWELL ADAPTER. POST-FLIGH I ADAPTER TESTS BY MEDOWELL SHOWED THAT ADAPTER UNDERNENT CLOVERLEAF DISTORTION UNDER AKTAL LOND. IT IS BELIEVED TH AT ADAPTER FAILURE (ED TO RUFTURE OF LOK TAME.	ULT OF POSSIBLE FAIL LOVERLEAF BISTCRTION	URE OF HES	CHARELL A	DAPTER. POST IT IS BELIM	-FL 164	
SYSTEM EFFECT-LOSS OF ST	SYSTEM EFFECT-LOSS OF STRUCTURAL INTEGRITY. ATLAS LOW TARK WAS RUPTURED AT ST SECONDS.	WAS FUNTURED AT ST S	ECONDS.				
VEHICLE LFFECT-LOSS OF V	VEHICLE LIFECT-LOSS OF VEHICLE INTEGRITY. RUPTURE OF LOX TANK LED TO VEHICLE DESIRUCTION. PRICR TO RUPTURE OF THE OX TANK, OPERATION OF ALL ATLAS SYSTEMS WAS SATISFACTORY.	NK LED TO VEHICLE DE	STRUCTION.	PAICH 1	O RUPTURE OF	1 3 E	
CORRECTIVE ACTION-19 LON ATLAS-PAYLOAD COMBINATION	CORRECTIVE ACTION-1) LOX TANK 3KIN THICKNESS WAS INCREASED TO INCREASE TANK STRENGTM, 2) REQUIRENENT MADE THAT ALL Atlas-payload combinations umdergo structural dynamic analysis.	TO INCREASE TANK BTP 18.	ENGTH, #)	REQUIREN	ENT MADE THA	T ALL	•
AIRFRAME-A/B BUSTAINER SECTION	AE6G-0536/P4-402-00-62 Bu.kmead Inbulation	COUNTROAM	\$ 0000 \$0000 \$0000	*	YES HO		
FAILURE MODE-LEAK-INTERNAL. I IN QUAD Z FRON 878 979 TO 945.	FAILURE MOE-LEAK-INTERMAL. INBULATIOM BULKMEAD BEAL FOUND CRACKED DURING PUEL TAHKING R JUNE. CRACK WAS R9 INCHES N quad & Pron sta 070 to 045.	CRACKED DURING PUEL	TALKING R	JUNE. CR	ACK WAS ES !	MCHE .	
STRIEM EFFECT-NOME.							

15 JUN 1966

### 1961-1915   PALIED CONFORTH HANGE   DIT DAIL ADVICE   VEHICLE   PALE   PALE		OIFFICULTIES REVIEW-AIRFRAME STATEM-AIRBORNE	RFMANE SYSTEM-AIRBORN					1
ACTION-EST LE FUEL DRAINED FROM INTERNEDIATE BULNHEAD THROUGH DRAIN 7-78834-7. BUANHEAD UBED AS 18 BY LA 4 80 FRICCHI TUEL AND 93 FRECHY LOC.  CITCH ETH-O18/14-311-18-8E  CITCH SULATION DRAINED FROM INTERNEDIATE BULNHEAD THROUGH DRAIN 7-78834-7. BUANHEAD UBED AS 18 BY LA 1	3731EH 300-373TEH	TEST/REPORT HUNBER FAILED COMPONENT HAME	DIF DATA BOURCE PART HUNBER	VEHICLE Date DIF			VENDOR NAME ENDOR PART NO	
TO PETICEN TEL. AND DETICEN LINES MEDIATE BULNERED THROUGH DRAIN 7-78834-7. BULNERAD DEED AS 18 BY LA ACTION-REST LEE, AND 38 PETICEN LINES.  ETR-O18714-511-16-36  ETR-O18714-51-36  ETR-O187	VEHICLE EFFECT-NOME.	LAUNCH MITH 90 PCT FUEL AND 85 PCT L	.ок.					•
ETR-016/14-511-18-9E  SUSTAINER PROUT CAMBER BOOT  DE-STRUCTURAL. BOOT WAS TORN DURING TEST.  ECT-NOME.  ACTION-NOME.  CICH SHORT CAMBER BOOT  ACTION-NOME.  CICH SHORT CAMBER BOOT  CICH SHORT CAMBER BURNERD  ET-3007-867  CICH SHORT CAMBER CAM	COFRECTIVE ACTION-261	F LB FUEL DRAINED FROM INTERMEDIATE B	ULKHEAD THROUGH DRAIN	7-76854-	, BULRHEA	5		
FECTION SECTION WAS TORN DURING TEST.  FECT-NOME.  ACTION-NOME.  ACTION-NOME.  ACTION-NOME.  ACTION-NOME.  BE-07-010  FAR 62D ETR YES  FOR THE NORMALION BURNEAD REPTRED DURING HISSILE FIRST FUEL TANKING WEIN TANK WAS FILLED TO 100.  FECTIVATION SELOW 100 PCT AND STEPPED TO PRASE II PRESSURE FOR LEAK CHECKING. WHEN PRESSURE WAS REDUCED TO WAS POLICE TO 100.  FECTIVATION SELOW 100 PCT AND STEPPED TO PRASE II PRESSURE FOR LEAK CHECKING. WHEN PRESSURE WAS PILLED TO 100.  FECTIVATION SELOW 100 PCT AND STEPPED TO PRASE II PRESSURE FOR LEAK CHECKING. WHEN PRESSURE WAS FILLED TO 100.  FECTIVATION SELOW 100 PCT AND STEPPED TO PRASE II PRESSURE FOR LEAK CHECKING. WHEN PRESSURE WAS FILLED TO 100.  FAR AGO-1014/PCT-48N-UE-EZ COMPOSITE-FROOM.  ACTION-NAME INTERNEDIATE INSULATION BURKHEAD  FOR LEVEL TANKING I.S HOURS DEFORE. EST LES FUEL DRAINED FROM BURNIEMO.  FECTIVONE.  FECTION-NOWE.  FECTION-NOWE.  FAR ACTION-NOWE.  ACTION-NOWE.  ACTION-NOWE.  ACTION-NOWE.  ACTION-NOWE.	AIRFRAHE-A/B BUSTAINER SECTION	ETR-016/14-511-1K-3E SUSTAINER THRUST CHANDER BOOT	CAPTI VE	<b>6</b> 00000		5 Q	3/ <b>Q</b>	•
ACTIGN-NOME.  SECT-NOME.  ACTIGN-NOME.  SECT-NOME.  SECTION  SECTI	FAILURE MODE-STRUCTUR	RAL. BOOT WAS TORN DURING TEST.						
FECT-MOME.  ACTION-MOME.  FEAR  BB-OE-DID  FAR  BB-OE-DID  FAR  BB-OE-DID  FEAR  FEAR  BB-OE-DID  FEAR  FEAR  BB-OE-DID  FEAR  BB-OE-DID  FEAR  FEAR  BB-OE-DID  FEAR  FEAR  FEAR  BB-OE-DID  FEAR  FEAR  FEAR  BB-OE-DID  FEAR  FEAR  FEAR  FEAR  BB-OE-DID  FEAR  FE	SYSTEM EFFECT-NOME.							
ACTION-NOME.  98-02-010  FAR  98-02-010  E-73007-867  60060E  100.  103-02-010  E-73007-867  60060E  100.  98-02-010  F-73007-867  60060E  100.  F-73007-867  60060E  100.  F-73007-867  60060E  100.  F-73007-867  60060E  100.  F-73007-867	VEHICLE EFFECT-NOME.							
99-0E-010 INSULATION, BURNEAD E-73007-867 60060E INSULATION, BURNEAD PE-73007-867 60060E INSULATION BULKHEAD RUPTURED DURING MISSILE FIRST FUEL TANKING WHEN TANK WAS FILLED TO 100. VED TO JUST SELOW 100 PCT AND STEPRED TO PRASE II PRESSURE FOR LEAR CHECKING. WHEN PRESSURE WAS REDUCED TO CONTINUOUS FLOW OF FUEL WAS NOTED FRON THE INSULATION SPACE BETWEEN THE BULKHEADS.  ACTICN-INSULATION BULKHEAD, DETERMINED UMPECESSARY BY TESTINS, WAS REMOYED FRON 8ED, SED AND 4D. THEY HI NSTALLED ON 40E; 4.5 MOD ON. 11 WAS RE-CHANAIRED.  AND THAT FILL RATE SHOULD BE REDUCED WHEN 90 PCT LEVEL 18 REACHED.  AA60-0041/P4-48H-UZ-62 COMPOSITE-FROOM. 600 14 PCS CONVAIR  AA60-0041/P4-48H-UZ-62 COMPOSITE-FROOM. 600 14 PCS CONVAIR  ROOGOLE AA60-0041/P4-48H-UZ-62 COMPOSITE-FROOM. 600 14 PCS CONVAIR  ROOGOLE AA60-0041/P4-48H-UZ-62 COMPOSITE-FROOM. 600 14 PCS PORTER FUEL TANKI ADE-SIRUCTURAL. BULKHEAD CRACKED 23 HOURS OFFORE, EST LBS FUEL DRAINED FROM BULKHEAD.  ECT-MONE.  ECT-MONE.  ECT-MONE.  ACTION-MONE. IN SSIAMS WRITTEN, DECISION MADE TO FLY WITH BULKHEAD AS IS BY TANKING FUEL TO 89 PERCENT P  ACTION-MONE.	CORRECTIVE ACTION-NO	ý						
DE-STRUCTURAL-INSULATION BULKHEAD RUPTURED DURING HISSILE FIRST FUEL TANKING WHEN TORESOUR WAS FILLED TO 100.  WELL TO JUST BELOW 100 PCT AND STEPPED TO PHASE II PRESSURE FOR LEAK CHECKING. WHEN PPESSURE WAS REDUCED TO CONTINUOUS FLOW OF FUEL WAS MOTED FROM THE INSULATION SPACE BETWEEN THE BULKHEADS.  ACTION-INSULATION BULKHEAD, DETERMINED UNMERESSARY BY TESTING, WAS REMOVED FROM SED, SED AND 40. THEY WILLIAM STALLED ON 40E, 45E AND OF AND AT AND ON. 11 WAS RE-EMPHASTED THAT PUEL TANK SHOULD BE PILLED PRIOR TO AND THAT FILL RATE SHOULD BE REDUCED WHEN BY PCT LEVEL IS REACHED.  AASO-CDAL/PR-48B-UE-EZ  COMPOSITE-FRD/DE, GED  AASO-CDAL/PR-48B-UE-EZ  COMPOSITE-FRD/DE, GED  AASO-CDAL/PR-48B-UE-EZ  COMPOSITE-FRD/DE, GED  BE-STRUCTURAL. BULKHEAD CRACKED 25 INCHES IN QUAD II FROM STA 370 TO STA 945. DISCOVERED AFTER FUEL TANK!  BE-STRUCTURAL. BULKHEAD CRACKED 25 INCHES IN QUAD II FROM STA 300 BULKHEAD.  ECT-NOWE.  FECT-NOWE.  ACTION-HOWE.  ACTION-HOWE.  DE LOX TO 35 FERENT LOX FROME.	AIRFRAMC-A/B	98-02-010 Insulation, Burkhead	FAR 2:-73007-867	620 600602		YES 130		08072
ACTION-INSULATION DUICHEAD, DETERMINED UNMECESSARY BY TESTIND, WAS REMOVED FROM 4ED, SED AND 4D. THEY NIL NISTALLED ON 40E, 43E, AND CH AND ON. IT WAS RE-EMPLASTED THAT FULL TAKE SHOULD BE FILLED PRIOR TO AND THAT FILL RATE SHOULD BE REDUCED WHEN 90 PCT LEVIL IS REACHED.  AA60-CD41/P4-48M-UE-E2 COMPOSITE-FRD/DFL 62D 14 YES CONVAIR BDESTIGN INTERMEDIATE INSULATION DULKHEAD  ET-73007-867  BDE-51RUCTURAL. BJLFHEAD CRACKED 25 INCHES IN QUAD II FROM STA 970 TO STA 945. DISCOVERED AFTER FUEL TAKES  ECT-NOME.  FECT-NOME.  ACTION-HOWE. IN 531461 WRITTEN. DECISION MADE TO FLY WITH BULKHEAD AS IS BY TAMKING FUEL TO 80 PERCENT P  ACTION-HOWE.	FAILURE MODE-STRUCTUR E PCT, DRAIMED TO JUS: O PHASE I A CONTINUOUS	RAL-INSULATION BULKHEAD AUPTURED DURI I BELOM 100 PCT AND STEPPED TO PHASE S FLOM OF FUEL WAS NOTED FROM THE INS	ING MISSILE FIRST FUEL II FRESSURE FOR LEAK NAATION SPACE BETWEEN	TANKING I CHECKING. THE BULK	HEN TANK MIEN PPES HEADS.	SURE.	TILLED TO 100.	
AA60-CD41/P4-4BH-UE-EZ COMPOSITE-FRD/DFL GED 14 YEB CONVAIR CTION INTERMEDIATE INSULATION DULKHEAD 27-T30DT-867 400GDE NO DE-SIRICTURAL. BULFHEAD CRACKED ES INCHES IN QUAD II FROM STA 970 TO 874 945. DISCOVERED AFTER FUEL TANKI AD FOLLOWED A LOX TANKING 1.5 HOURS DEFORE, E07 LBS FUEL DRAINED FROM BULKHEAD. FECT-NOWE. ACTION-HOWE. IN SS1461 WRITTEN. DECISION NADE TO FLY WITH BULKHEAD AS 18 BY TANKING FUEL TO 80 PERCENT P	CCHAECTIVE ACTION-IN LL MOT BE INSTALLED OF LOX TANKING PND THAT F	SULATION DUERHEAD, DETERMINED UMMECES HI 40E, 45E AND CHI AND 4F AND CH. 11 N FILL RATE SHOULD BE REDUCED WHEN 90 F	SSARY BY TESTING, WAS AS RE-EMPHASIZED THAT PCT LEVEL IS REACHED,	REMOVED FI	ACH BED, S	ED AP	40 4D. THEY WE	
ISCOVERED AFTER FUEL TANK MEIHG FUEL TO SO PERCENT	AIRFRAME-A/B SUSTAINER SECTION	AA60-CD61/P4-48N-UE-62 INTERMEDIATE INSULATION DULKHEAD		30900 <b>9</b>	*	<u> </u>	COHVAIR	•
NE. OME. 4-NOME. IR SSIJAGI WRITTEN. DECIBION MADE TO FLY WITH BULKHEAD AB IB BY TAMKING FUEL TO BO PERCENT TO US PERCENT LOX FROBE.	FAILURE MODE-STRUCTU	RAL. BULPHEAD CRACKED ES INCHES IN GU D. A. LOK TANKING 1.5 HOURS DEFORE, 201	UAD II FROM STA 970 TQ 7 LBS FUCL DRAINED FRO	BTA 945.	DISCOVERE D.	Δ <b>.</b>	IER FUEL TANKI	
OME. 4-MOME. IR SSIABI WRITTEH. DECIBION MADE TO FLY WITH BULKHEAD AB IB BY TAMKING FUEL TO BO PERCENT TO 85 PERCENT LOX FROBE.	BYSTEH EFFECT-NONE.							
ч-момс. IR SS1481 MRITTEH. DECIBION MADE TO FLY WITH BULKHEAD AB IB BY TAMKING FUEL TO BO PERCENT To us percent lox probe.	VEHICLE EFFECT-NONE.							
	Ż		TO PLY WITH BULKHEAD	Ab 15 BY	TANKING FU	1		
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GENERAL DYNAHICS

15 JUN 1966

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IN DIVISION	
CONVAIR	

	DIFFICULTIES REVIEW-AIRFRAME SYSTEM-AIRBORNE	RAHE SYSTEM-AIRBORN	4.4	:		
SYSTEM SUG-SYSTEM	TEST/REPORT NUMBER FAILED COMPOMENT NAME	DIF DATA BOURCE PART NUMBER	VEHICLE DATE DIF	817E P	VEHICLE SITE PRI VENDOR MANE DATE DIF TIME DIF OTH VENDOR PART NO	
AIRFRAHE-A/B \$USTAINER SECTION	ETR-015/14-310-1J-3E SUSTAINER THRUST CHANGER BOOT	CAPTIVE	600328	7-1	7E& 60/C NO	:
FAILURE MODE-STRUCTURAL.	FAILUKE MODE-STRUCTURAL, BOOT WAS BADLY TORN DURING THE TEST.	<u>ئ</u> و .				
SYSTEM EFFECT-HIGH TEMPE	SYSTEM EFFECT-HIGH TEMPERATURE ENVIRONMENT. SLIGHT INCREASE IN SUSTAINER ENVIRONMENTAL TEMPERATURE.	IN SUSTAINER ENVIR	MENTAL T	EMPERATURE		
VEHICLE EFFECT-NOWE.						
CORRECTIVE ACTION-UNKNOWN.	ŧ					
AIRFRAME-A/B SUSTAINER SECTION	AEGG-0320/P4-401-00-45 RETROROCKET POD COVER	COUNTDOWN	430	-9000	YES NO	.0700
FAILURE MODE-OUT OF TOLE	FAILURE MOS-OUT OF TOLERANCE OR SPECIFICATION, DIFFICULTY WAS ENCOUNTERED INSTALLING RETROROCKET POD COVERS.	WAS ENCOUNTERED INS	TALLING RE	FROROCKET	POD COVERS.	
SYSTEM EFFECT-NOME.						
VEHICLE EFFECT-COUNTDOM-	VEHICLE EFFECT-COUNTDOM DELAYED TO COMPLETE RETROROCKET POD COVER; INSTALLATION DELAY ESTIMATED TO MAVE BEEN 55 MI MUTES, ACCURATE HOLD TIME NOT DETERMINABLE DUE TO OTHER PROBLEMS	D COVER: INSTALLATION	N DELAY E	STIMATED 1	O HAVE BEEN 55 MI	
CORRECTIVE ACTION-UNKHOWN.	A.					
AIRFRAME-A/B BUSTAINER SECTION	ETR-013/14-506-14-3E SUNTAINER POOT CLANP	CAPTIVE	600421	7	YES 60/C NO	*****
FAILURE MODE-FAILURE DUR	FAILURE MOE-FAILURE DURING OPERATION-BOOT CAME PARTIALLY UNSNAPPED.	MSHAPPED.				
SYSTEM EFFECT-NOME, TEST VER, THIS AND PREVIOUS SE	SYSTEM EFFECT-NOME. TEST WAS PREMATURELY TERMINATED DY AN OBSERVER WHEN THRUST SECTION TEMPS EXCEEDED REDLINE, HOME MER, THIS AND PREVIOUS SIMILAR CUTUFFS HAVE BEEN DETERMINED TO BE THE RESULT OF INSTRUMENTATION DIFFICULTIES.	BAERYER WHEN THRUST TO BE THE RESULT OF	SECTION T	CHPS EXCEC	SECTION TEMPS EXCECDED REDLINE, HOME INSTRUMENTATION DIFFICULTIES.	
VEHICLE EFFECT-NONE.			- / ,			
CORRECTIVE ACTION-UNKNOWN.	χ.	de algebrie de de la company de des de la company de des de la company de la company de la company de la compa				
AIPFPAME-A/B BUBIAINER BECTION	AA60-0130/P2-48N-03-59 Insulation Bulkhead	COMPOST TE-FRB/BPL	550 <b>6</b> 003£1	÷ Z	7E\$	
FAILURE MODE-STRUCTURAL. PLIT. AFTER REFAIR AND AN ULMHEAD HAD FLAKED OFF AN	FAILURE MOE-STRUCTURAL, IT WAS DISCOVERED AFTER A TANKING TEST THAT THE INSULATION BULKHEAD IN THE FUEL TANK HAD S FLIT. AFTER REFAIR AND ANOTHER TANKING THE INSULATION BULKHED HAD SPLIT AGAIN AND THE SEALER AROUND THE INSULATION B ULRHEAD HAD FLAKED OFF AND DROPPED INTO THE FUEL TANK.	TEST THAT THE INSUL/ D MAD SPLIT AGAIN AN	TION BULK	EAD IN TH	E PUEL TANK HAD & THE INSULATION B	

SYSTEM EFFECT-HOME, AS A RESULT OF THE SPLIT, FUEL MAS LEAKING UNDER THE INSULATION BULKHEAD.

VEHICLE EFFECT-COMPOSITE AND TANKINGS DELAYED AND RESCHEDULED.

GENERAL DYMANICS CONVAIR DIVISION

18 JUN 1966

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\$10-\$15TEN	"A:LED COMPONENT NAME	PART NUMBER	DATE DIP THE DIP OTH VENDOR PART NO	VENDOR NAME	
CORRECTIVE ACTION-AFTER REPAIRING TO BULKHEAD WAS SUBSEQUENTLY REMOVED.	CORRECTIVE ACTION-AFTER REPAIRING THE INSULATION BULRHEAD ONCE AND DISCOVERY THAT IT HAD SPLIT AGAIN, THE INSULATIO BULKHEAD WAS SUBSEQUENTLY REMOVED.	D ONCE AND DISCOVERY	THAT IT HAD SPLIT AGAIN, T	T	40044
AIRFRANE-A/B BUSTAINER SECTION	88-02-007 A16 POD DOOR LATCH	FAR 27-72941-13	42D ETR YES 600304 HO		0000
FAILURE MODE-STRUCTUR RCPER ENCAGING OF THE SEALS AND POSSIBLE DO	FAILURE MODE-STRUCTURAL - THE LATCH FRACTURED AT THE THREE HINGE PIN SUPPORTS DUE TO AN EXCESSIVE MOVEMENT FROM IMP CPER ENCAGING OF THE HOOK TO MATING BARREL NUT, THE LATCH WAS LIKELY USED IMPROPERLY TO AID IN DOOR CLOSURE, STRONG SEALS AND POSSIBLE DOOR-TO-LATCH INTERFERENCE MADE DOOR CLOSURE DIFFICULT.	EE HINGE PIN SUPPORTS H WAS LIKELY USED IMP CLOSURE DIFFICULT,	DUE TO AN EXCESSIVE MOVEN ROPERLY TO AID IN DOOR CLC	ENT FROM IMP	
CORRECTIVE ACTION-PRO	CORRECTIVE ACTION-PROPER DOOR CLOSURE PROCEDURES AND CORRECTIVE HEASURES IN SEAL UJAGE WERE MADE AVAILABLE TO FACTO T AND ETR PERSONEL.	RECTIVE HEABURES IN B	EAL UJAGE WERE MADE AVAILA	BLE TO FACTO	
AIRFRAME-A/B BUSTAINER DECTION	AZC-E7-118/P4-401-D0-E9 LO4 TANK	F1947	29D 14 NO 600226 258.92 NO		98130
FAILURE MODE-STRUCTURAL. THE LOX TAME A DTROWG SHOCK. THE SATELLITE WENICLE AT SEPARATION.	FAILURE HODE-STRUCTURAL. THE LOX TAIM IMS RUPTURED AT ESS.RE, FOLLOWING RETROROCKET FIRING. THE MISSILE A DTROWG SHOCK. THE SATELLITE VEHICLE WAS ALSO AFFECTED. POSSIBLE CAUSE WAS IMADVERTENT DESTRUCT OF THE AT SEPARATION.	. POSSIBLE CAUSE WAS I	RETROROCKET FIRING. THE MISSILE EXFERIENCED WAS INADVERTENT DESTRUCT OF THE UPPER STAGE	EXPERIENCED UPPER STAGE	
SYSTEM LFFECT-LOSS OF	SYSTEM LFFECT-LOSS OF BIRUCTURAL INTEGRITY-VENICLE STRUCTURE FAILED.	TURE FAILED.			
VEHICLE EFFECT-LOSS OF LE TUBLINS.	OF VEHICLE STABILITY THE INITZAL SHOCK AND THE VENTING OF GASES. THROUGH THE BREAR CAUSED HISSI	KK AND THE VENTING OF	GASES. THROUGH THE BREAK	CAUSED HISSI	
CORRECTIVE ACTION-NO	CORRECTIVE ACTION-WOKE, FOR ATLAS, UPPER STACE CORRECTIVE ACTION CONSISTED SYSTEM.	ACTION CONSISTED OF	A REDESIGN OF THE INADVERTENT DESTRUC	HENT DESTRUC	
AIRFRAME-A/B BUBTAINER BECTION	ETR-021/14-319-E2-SE SUSTAINER THRUST CHANGER 900T	CAPTIVE	600E09 1-4 VES		*****
FAILURE MODE-STRUCTU	FAILURE MOCE-BTRUCTURAL. THE BUBTAINER BOOT WAS TORN LOOSE BURING THE RUM. ENGINE COMPARTMENT TENTERATURES BIB MOT MERCASE APPRECIABLY.	SE DURING THE RUH. EN	GINE CONPARTMENT TEMPERATI	ACS DID NOT	
SYSTEM EFFECT-LOSS OF	F STRUCTURAL INTEGRITY.				
VEHICLE EPFECT-HOME.					
CORRECTIVE ACTION-REPLACE BOOT.	PLACE BOOT.				

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GENERAL DYNAHICS CONVAIR DIVISION

18 JUN 1888

DE NOT ST	DIFFICULTIES REVIEW-AIRFRAME SYSTEM-AIRBORME	RAME BYSTEM-AIRBORN	u				1
SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA BOUNCE PART NUMBER	VEHICLE DATE DIF	SITE TIME OIF		PRE VENDOR NAME OTH VENDOR PART NO	_ <del></del>
AIRTRAME-A/B \$US TAINER SECTION	ETR-008/14-502-C1-5E SUSTAINER THRUST CHANGER BOOT	CAPTIVE	600204	<u> </u>	7E\$ 60/C	۷	*****
FAILURE MODE-FAIL DURING	FAILURE MODE-FAIL DURING OPERATION. SUSTAINER BOOT DROPPED DOWN AND WAS TORN DURING THE TEST.	DOWN AND WAS TORN D	URING THE	TE81.		٠	
SYSTEM EFFECT-NONE.							
VEHICLE EFFECT-NOME.							
CORRECTIVE ACTION-UNKNOWN.	÷						
AIRFRAME.A/B BUSTAINER SECTION	SE-402-41-02 SUSTAINER BOOT	CAPTI VE	2D 391903	2	YES 60/C	٧	992803
FAILURE HODE-STRUCTURAL.	FAILURE MODE-STRUCTURAL, POST-TEST INSPECTION REVEALED LOSS OF SUSTAINER BOOT DURING TEST.	OF SUSTAINER BOOT	DURING TES	÷			
SYSTEM EFFECT-LOSS OF STR	SYSTEM EFFECT-LOSS OF STRUCTURAL INTEGRITY. NO AENORMAL INCREASE IN THRUST SECTION TEMPERATURES.	REASE IN THRUST SEC	TION TEMPE	RATURES.			
YEHICLE EFFECT-NONE.							
COPRECTIVE ACTION-REPLACE BOOT.	E BOOT.						
AIRFRANE-A/B BUSTAINER SECTION	98-02-008 OUTLET INSTALLATION-FUEL SUPPLY LI 7-73201-801 RE	FAR 7-73201-801	430 591828	E 13	YC.8		**************************************
FAILURE MODE-LEAR-EXTERNA LONG CRACK, THE CRACK WAS AREA NEAR A SECOND ROM OF	FAILURE MODE-LEAK-EXTERNAL-FUEL LEAK OF 6 DROPS PER HINUTE AT 47 PSIG AT FUEL TANK OUTLET FITTING THRU A 1/10 INCH Long CRACK, THE CRACK WAS CAUSED BY POOR HAND MADE ROSETTE WELDS WHICH CRACKED WITH TIME AND HANDLING. REHEAT OF THE AREA NEAR A SECOND ROW OF WELDS PROBABLY COMTRIBUTED TO THE FAILURE.	AT 47 FSIG AT FUEL ELDS WHICH CRACKED FAILURE,	TANK OUTLE	T FITTIN	THE R	A 1/10 THCH EHEAT OF THE	
CORRECTIVE ACTION-TYPE OF ISTANCE BETWEEN WELD AREAS ES NOW HADE. FOR 83D AND O	ON-TYPE OF VELD WAS CHANCED FROM ROSETTE TO HELL-ARC SPOT FOR MISSILES TED OM, EXCEPT FOR TSD. THE D WELD AREAS WAS INCREASED. SCALANT TYPE E.C. 1193 WILL DE APPLIED TO EXTERNAL FLANGE JOINTS OM MISSIL 63D AND ON, A LEAKAGE TEST AT 60 PSIG WILL BE MADE.	HELI-ARC SPOT FOR H 1593 WILL DE APPLIE BE MADE.	ISSILES TE D TO EXTER	D OH, EX	SEPT FO	R 76D. THE D	
AIRFRAME-A/B BUSTAIMER SECTION	52-410-C7-24 SUSTAINER THRUST CHANDER BOOT	CAPTIVE	£40 \$9101\$	2-2	7E\$ 60/C	٠,	98098
FAILURE HODE-STRUCTURAL-1	FAILURE HODE-STRUCTURAL-THE SUSTAINER THRUST CHANDER BOOT WAS LOST-CAUSE UNKNOWN.	AS LOST-CAUSE UNKNO	į				
SYSTEM EFFECT-HIGH THRUST	IGH THRUST SECTION TEMPERATURES.						
VEHICLE EFFECT-NONE-ALTHO	VEHICLE EFFECT-NOME-ALTHOUGH THE BUSTAINES EMAUSTERATOR WAS DENTED.	DENTED.					
CORRECTIVE ACTION-THE BOO	CORRECTIVE ACTION-THE BOOT WAS FURTHER REDEBIONED.	,					
						BAAR BOAR	7

GENERAL DYNAMICS CONVAIR DIVISION

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DIFFICULTIES REVIEW-AIRFRAME SYSTEM-AIRBORNE

13 JUN 1968

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8 14 - 8 15 15 16 16 16 16 16 16 16 16 16 16 16 16 16	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA BOURCE. PART NUMBER	VEHICLE SITE DATE DIF TIME DI	VEHICLE SITE PRI VENDOR MANE BATE DIF TIME DIF OTH VENDOR PART NO	
AIRFRANE-A/B BUSTAINER SECTION	9D-DE-DOS LIGUID OXYCEM TANK PRESSURIZATION 7-75313-661 BUCT	FAR 7-73313-6G1	80 801014	YES NO	10800
FAILURE MODE-LEAR-EXTERN WAS ACCELERATED BY USE OF I TO COMPISURATION OF NOW B AND PITTINES IN OPHER PARTINES IN OPHER P	FAILURE MODE-LEAK-ERTERBAL - EXCESSIVE DUCT LEARAGE THRU CORROSION PIT HOLES AND STRESS CORROSION CRACKS. CORROSION WAS ACCELERATED SY USE OF AN UNDILUTED ACIDIC CLEANER, TURCO WIS, AN ADEBUATE RINSE AFFER CLEANING MAS DIFFICULT DU I TO CONFIGURATION OF WORK PLATFORMS PREVENTING ACCESSIBILITY. THE TURCO WIS ALSO BECAME ENTRAPPED IN FAYING SURFACE & AND PITTIMSS IN OTHER PORTIONS OF THE MISSILE. (LEARAGE CONFIRMED BY TEST).	PROSION PIT HOLES A TO YOL. AN ADERIATE I TY. THE TURCO NOI AL	ND STRESS CORROSI BINSE AFTER CLEAN BO BECAME ENTRAPP	ON CRACKS. CORROSION INC MAS DIFFICULT DU ED IN FAYING SUNFACE	
CORRECTIVE ACTION-A CLEA CLEAR MATER FOLLOWED BY INE GRIT RUBBING CONFOUND	CORRECTIVE ACTION-A CLEANING INSTRUCTION WAS ISSUED WHICH DISCONTINUED USE OF ACIDIC CLEANERS AND CALLED FOR USE OF CLEAR WATER FOLLOWED BY A PRESERVATIVE CONTING OF NOAGE OF A PRESERVATIVE CONTING OF NOAGE OF A PRESERVATIVE CONTING OF A PRESERVATION OF CORPOWED FOLLOWED BY WATER RINSE AND NOAGE OF A PRESERVATION.	DISCONTINUED USE OF LINS NOT REMOYED BY APPLICATION.	ACIDIC CLEANERS A Mater Will be Rem	NO CALLED FOR USE OF A F	
AIRFRANE-A/B BUSTAINER SECTION	EN1341/P3-402-00-17 BOOT SUSTAINER	FRF	17D 18 90000	YES 60/C	• • • • • • • • • • • • • • • • • • • •
FAILURE MODE-STRUCTURAL.	UCTURAL. THE TUSTAINER BOOT BECAME DISPLACED UPWARDS 13 INCHES DURING THE FLIGHT READINESS FIRING.	ID UPLANDS 15 INCHES	DURING THE FLIGH	T READINESS FIRING.	
STSTEM EFFECT-LOSS OF S'	SYSTEM EFFECT-LOGS OF STRUCTURAL INTEGRITY. DISPLACEMENT OF THE SUSTAINER BOOT PERMITTED HEAT TO ENTER. THE THRUST SECTION TRANSTENTS WENE OBSERVED ON SUSTAINER YAW ENGINE POSITION.	THE SUSTAINER BOOT	PERHITTED HEAT T	O ENTER. THE THRUST	
VEHICLE EFFECT-THE VEHIC	THE VEHICLE WAS HELD DOWN DURING THE RUH, PROJIBITING ANY REACTION BY OR ON THE VEHICLE. THE TRANSIE TWO SPIKES OF APPROXIMATELY 1.0 DEGREES AMPLITUDE.	COMBITING ANY REACT	ION BY OR ON THE	VEHICLE. THE TRANSIE	
CORRECTIVE ACTION-HONE.					
AIRFRANE-A/B BUSTAINER DECTION	2C-7-221/PE-3D4-DG-D6	P.164T	8C 1E 9807E1 AB	7E\$	
FAILURE MODE-STRUCTURAL.	Failire mode-structural, at 42 seconds, spots, appearing to be pieces of structure of one sauare folt area, neke se	D BE PIECES OF STRUC	TURE OF OME SOUMR	E FOST AREA, WENE SE	

FAILURE MODE-BIRUCTURAL. AT 42 SECONDS, SPOTS, APPEARING TO BE PIECES OF BIRUCTURE OF CHE SBUARE FOLT AREA, MENE SE EN TO FALL ANNY FROM THE VEHICLE, THE PIECES APPEARED TO BE BLOWN OUTWARD FROM AN AREA JUST FORWARD OF THE ACCOURS B ECTION. SPOTS WERE ALSO SEEM AT 48 SECONDS ON THE BUAD 1 AND & SIDES. VEHICLE ETFECT HOME. FLIGHT PLAN HAS FULLY SATISFIED, HOMEVER, INPULSE-TYPE DISTURBANCES MERE REFLECTED ST ROLL, PI Tem and yaw rate 67806 at 48.4, 48.6 and 49.8 seconds, Respectively, relationemip to pieces unknown. SYSTEM EFFECT-MOME. PIECES MENE HOT IDENTIFIED.

CORNECTIVE ACTION-HOME.

PAGE 0043

VEHICLE EFFECT-COUNIDOMN DELAYED. APPROXIMATELY 60 MINUTES OF A 105 MINUTE MOLD WAS DUE TO DIFFICULTY IN SETTIMS PO D DOORS OFFM.

CORRECTIVE ACTION-DRILLED SCREWS OUT AND REPLACED WITH NEW CHES.

SYSTEM EFFECT-NONE.

## GENERAL DYNAHICS CONVAIR DIVISION

DIFFICULTIES REVIEW-AIRPRAME BYSTEH-AIRBORNE

9961 NOF ST

SYSTEM SUD-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA BOUNCE PART NUMBER	VEHICLE BITE PRI	ALTE NEW YORK		VENDOR HAME VENDOR PART NO	
AIRFRAME-A/B SUSTAINER SECTION	81-402-41-09 8USTATNER BOOT	CAPTIVE	90 390522		158 60/C		000
FAILURE MODE-STRUCTURAL.	FAILURE HODE-STRUCTURAL. POST TEST INSPECTION REVEALED A TORN SUSTAINER BOOT AROUND LONER SEAM.	RN SUSTAINER BOOT A	ROUND LONER	BEAM.			
SYSTEM EFFECT-NOME. ENGI	SYSTEH EFFECT-NOME. ENGINE COMPARTMENT TEMPERATURES MERE MORNAL.	RHAL.					
VEHICLE EFFECT-NONE.							
CCARECTIVE ACTION-REPAIR EGOT.	t Ecot.					is distingu	
AIRFRANG-A/B SUSTAINER SECTION	WT0E39-0250-A/1A-302 SUSTAINER BOOT	CAPTIVE	6C 1A 590327 3.8		YES 60/C		092954
FAILURE MODE-STRUCTURAL. MCHI TEMPERATURE BEHAVIOR	FAILURE MOE-STRUCTURAL. LOSS OF SUSTAINER BOOT WAS INDICATED BY SUSTAINER GINBALLING TRANSIENTS AND ENGINE COMPART	ED BY SUSTAINER GIM	BALLING TRAN	SIENTS /	NO ENGI	NE COMPART	
SYSTEM EFFECT-NOME, ENGI	SYSTEM EFFECT-NOME. ENGINE COMPARTMENT TEMPERATURES DID NOT INCREASE SIGNIFICANTLY.	INCREASE SIGNIFICA	HTLY.				
VEHICLE EFFECT-NOWE, ENG	VEHICLE EFFECT-NOME. ENGINE COMPARTHENT TIRE AND VEHICLE EXPLOSION RESULTED FROM ADDITIONAL FAILURES.	PLOSICH RESULTED FR	OH ADDITIONA	L FAILUS	.es.		·····
CORRECTIVE ACTION-UNKHOWN.							
AIRFRAME-A/B SUSTAINER SECTION	98-02-004 FUEL TANK CONE FLANGE O-RING	FAR 7-76002	5C 590223		YES CO		008723
FAILUNE MODE-LEAK-ENTERN RING SEAL, SEAL WAS CUT CH POUNDS.	FAILURE MODE-LEAK-EXTERMAL-FUEL LEAK AT FLANGE JOINT OF FUZL TANK COME APEX DUE TO INPROPERLY (FACTORY) INSTALLED O RING SEAL, SEAL MAS CUT IN TWO PLACES AND MAS INSUFFICIENTLY TORGUED TO 50-55 INCH- POUND, STANDARD TORGUE IS 70 IN H POUNDS.	L TANK COME APEX DU f TORGUED TO 50-55	E TO INPROPE INCH- POUND.	RLY (FAC STANDAR	TORY) I	NSTALLED O	
CORRECTIVE ACTION-EFFECT ADE OT THE INSTALLATION A	CORRECTIVE ACTION-EFFECTIVE ON HISSILE 9D AND ON THIS SEAL WILL BE REFLACED WITH A LOW PRESSURE TYPE, A CHECK WAS M ADE OT THE INSTALLATION AND TORQUING PROCEDURES USED ON THIS REAL.	WILL BE REFLACED WE REAL.	TH A LOW PRE	SSURE TY	PE. A C	HECK MAS H	
AIRFRAME.A/D BUSTAINER SECTION	FTA 4410/P4-201-00-12 POD DOOR SCREWS.	484	128 14 501121 -71	001	42.0		001181
FAILURE MODE-STRUCTURAL.	FAILURE MODE-STRUCTURAL. THELVE SCREMS ON THE POD NO 2 DOORS SHEARED OFF INSTEAD OF SACRING OUT.	8 SHEARED OFF INSTE	AD C. BACKIN	\$ 2.	,		

PAGE 0064

CORRECTIVE ACTION-NOME, BUFTURE OF THE BULKHEAD PRECLUBED ANY FURTHER TESTING OF THIS VEHICLE.

WEMICLE EPFECT-MOME, THE TEST WAS COMPLETED SATISFACTORILY.

GENERAL DYNAMICS CONVAIR DIVISION DIFFICULTIES REVIEW-AIRFRAME SYSTEM-AIRBORNE

13 JUN 1966

A. Cas V. A. A.

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8781EH 840-8781EH	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	11 E 01 F	VEHICLE SITE PRI VENDOR NAME DATE DIF TIME DIF OTH VENDOR PART NO	
AIRFRAME-A/B BUBTAINER SECTION	F744262/P3-201-00-06 BOOT&	FRF	900000	13/ETR PLUB 1	YES 60/C NO	19361
FAILURE MODE-STRUCTURAL.	FAILURE MODE-STRUCTURAL. THE SUSTAINER ENGINE BOOT WAS TORN PROM THE MISSILE DURING ENGINE FIRING.	PROM THE MIBBILE D	AING ENGI	E FIRIN		
BYSTEM EFFECT-HIGH TEMPERATURE ENVIRONMENT.	MATURE ENVIRONENT.					
WEHICLE EFFECT-NOME.						
CORRECTIVE ACTION-REPLAC	CORRECTIVE ACTION-REPLACED BOOT WITH IMPROVED FASTENING.					
AIRFRANE-A/B BUSTAINER SECTION	FTAE542/P4-101-00-13 BO&3-INSTRUMENTATION	7.7	13A 500131	14/ETR	7£8 10	******
FAILURE MODE-LEAK-EXTERN	FAILURE MODE-LEAK-EXTERMAL. FUEL LEAKAGE AT AN INSTRUMENTATION BOBS TORUSEAL FITTING IN THE MISSILE FUEL TANK.	ION BOSS TORUSEAL F	1171H6 1N	THE HIBB	LE FUEL TANK.	
SYSTEM EFFECT-NONE.						
VEHICLE EFFECT-COUNTDOM	VEHICLE EFFECT-COUNTDOMN BELAYED. TOTAL HOLD TIME WAS FOUR HOURS TO FIX THESE LEAKS AND SEVERAL OTHER LEAKS.	HOURS TO FIX THESE	EAKS AND	DEVERAL O	THER LEAKS.	
CORRECTIVE ACTION-LEAR CORRECTED.	CARRECTUD.					
AIRFRAME-A/B SUSTAINER SECTION	FTA2360/P4-1MH-01-12 DISCOMECT PANEL	COMPOS I TE-FRD/DPL	12A 571126	14/ETR	YES NO	***************************************
FAILURE MODE-OUT OF TOLE	FAILURE MODE-OUT OF TOLERANCE. THE BUAD IN DISCONNECT PANEL WAS OUT OF ALIGHMENT.	HAS OUT OF ALIGHME	<b>.</b>			
SYSTEM EFFECT-OPERATION	BYBIEM EFFECT-OPERATION DOES NOT START, FUEL TANKING COULD NOT BE ACCOMPLISHED.	NOT BE ACCOMPLISHED				
VEHICLE EFFECT-COUNTDOM	VEMICLE EFFECT-COUNTDOMM DELAYED AND RESCHEDULED. 99 MIMUTES HOLD.	8 HOLD.				
CORRECTIVE ACTION-UNKNOWN.						
AIRFRANE-A/B BUBTAINER SECTION	EN759/1-1,113-8F0-05 INTERHEDIATE BULKHEAD	CAPTIVE	5A 57,029	=	22	
FAILURE MODE-STRUCTURAL- BMALL TEARS WIERE SHARP NK MMILE THE LOG TANK MAS ROM MERCURY AND FUEL COMT	FAILURE MODE-STRUCTURAL-SHORTLY AFTER THE TEST IT WAS FOUND THAT THE INTERNEDIATE BULKHEAD WAS COLLAPSED WITH THREE SHARS WHERE SHARP CREAKES EXISTED. TO MAINTAIN FUEL TAIK PRESSURE IT WAS NECESSARY TO FLOW HELIUM INTO THE TAIN WHILE THE LOE TAIK WAS BETHO CONTINUOUSLY VENTED. CAUSED BY ERRONEOUS PRESSURE INDICATIONS TO THE PCU RESULTING PROMECUTY AND FUEL CONTAMINATION IN THE PRESSURE SHIE.	THAT THE INTERMEDIA AM PRESSURE IT WAS BY ERROMEOUS PRESSU E.	NTE BULKHE/ NECESSARY NE INDICATI	to Flow	LLAPSED WITH THRE HELIUM INTO THE T HE PCU RESULTING	
SYSTEM EFFECT-LOSS OF STRUCTURAL INTEGRITY.	AUCTURAL INTEGRITY.					

GENERAL DYNAMICS CONVAIR DIVISION

9961 NOF 51

DIFFICULTIES REVIEW-AIRFRAME SYSTEM-AIRBORNE

X316A8	TEST/REPORT HUMBER	DIF DATA SOURCE	VEHICLE	\$11E	VEHICLE BITE PRI VENDOR MANE	
AIRTRANE - A / B	EM-7331-4,118-8F3-03 POD NO. 3 DOOR	CAPTIVE	\$4 \$710 <b>8</b> 4	1-1	YE\$ 60C	002200
<b>~</b> 4	F OF TOLERANCE. POD NO. 1 DOOR COULD NOT BE SECURED DUE TO INTERFERENCE OF BAND THAT MOLDS THE EBUIF.	SECURED DUE TO INTE	PERENCE O	F BAND T	IAT HOLDS THE EBUIL	
SYSTEM EFFECT-NOWE. NOT IN OPERATION.	IN OPERATION.					
VEHICLE EFFECT-COUNTDOWN DELAYED	# DELAYED.					
CORRECTIVE ACTION-DOOR N	MAS WIRED DOWN AND THE OPEN AREA TAPED.					
AIRFRAME-A/B SUSTAINER SECTION	FTA1779/P4-101-00-D4 BOSS-CH COME OF FUEL TANK	78.5	4A 570520	14/ETR	YES NO	- 255E7
FAILURE HODE-LEAK (EXTER	FAILURE HODE-LEAK (EXTERNAL). A FUEL LEAK AT A BOSS ON THE COME OF FUEL TANK MAS FOUND	COME OF FUEL TANK W	AS FOUND.			
SYSTEM EFFECT-NONE.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-TIGHTENED BOSS.	ENED BOSS.					
AIRFRAME-A/B BUSTAINER SECTION	AE62-0351/32-601-41-35 SUSTAINER BOOT	CAPTIVE	33F 62314	3-E 30.31	YES 60/C NO	• 1 • • • • • • • • • • • • • • • • • •
FAILURE MODE-FAIL BURING	FAILURE MODE-FAIL DURING CRERATION. SUSTAINER BOOT DISPLACED AS MUCH AS & INCHES BELOW BOOT RETAINERS.	D AS MUCH AS & INCH	ES BELOW	KOOT RETA	INCRS.	
SYSTEH EFFECT-HIGH TEMPE NE CNVIRONHENI. PAINT ON RED.	SYSTEM EFFECT-HIGH TEMPERATURE ENVIRONMENT. RAPID TEMPERATURE INCREASE OF THE ENGINE COMPARTMENT AND SUSTAINER ENGI E. Environment. Paint om the Aspirator betaer petainera and where the Boot Hugs the Aspirator was Badly meat bliste Ed.	MERC THE BOOT HUG	ENGINE CO	PARTHENT	AND SUSTAINER ENG 8 BADLY HEAT BLIST	
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-UNKNOWN.	W.					1
AIRFRAME - A / B SUSTAINER SECTION	AE61-0667 L1-401-00-106 Retrocket Cover PLATE	FLIGHT	1080	2 <b>\$</b>	YES TO	
FAILURE HODE-STRUCTURAL.	FAILURE HODE-ATRUCTURAL. TRACKING FILM DATA BHOMB AN ODJECT FALLING PROM HIBBILE. PLIGHT CONTROL PROBLEM BELIEVED USED BY HEATING OF THE GYRO PACKAGE LEADB TO THE BELIEF THAT THE OBJECT HAY BE THE RETROPOCKET COVER PLATE.	FALLING FROM MISSI IT THE OBJECT MAY BE	LE. PLICH	T CONTROL		<u>.</u>
EYSTEH EFFECT-NONE, EXTE	CYSTEN EFFECT-NOME, EXTERNAL HEATING OF THE GYRO PACKAGE COULD RESULT IF THE RETROROCKET COVER PLATE AT THE FORUMRD END OF THE POD CAME OFF IN FLIGHT.	JULD REBULT IF THE A	ETROROCKE	COVER P	LATE AT THE FORMA	
VEHICLE EFFECT-IMPROPER	VEHICLE EFFECT-IHPROFER TRAJECYDRY. BUE TO HEATING PROBLEM OF THE GYRO, PITCH CONTROL WAS LOST AND MISSION FAILURE	OF THE SYRO, PITCH	CONTROL W	18 LOST A	ND MISSION PAILURG	

DIFFICULTIES REVIEW-AIRFRAME SYSTEM-AIRBORNE

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18 JUN 1966

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PRI VENDOR NAME F OTH VENDOR PART NO		YES HI-SHEAR NO PC11-003	S WERE FOUND BETWEEN T INADVERTENTLY FIRED E WITHIN CONVAIR SPEC	MATICA DURING SCREEN	YE3 YE3	IELEASC UNTIL AFTER T ED A SHOCK INTO THE		TURED THE VI LOX LIN	BIBILITY OF THIS OCC	NO BAKER-HANLEY YES 7-43435-9
317E 71ME 01		E 1 R	READINGS ONE UNIT 178 WENE	MAL DETC	2-4 135.	ID NOT R		HAVE RUF	¥ 8	36.4
VEHICLE SITE PRI DATE DIF TIME DIF OTH		660310	RESISTANCE READINGS DURING TEST ONE UNIT REMAINING UNITS WERE	AN OCCASIO	7108 650527	HE LATCH D		MRE COULD	NVESTI SATE	1560 650302
DIF DATA SOURCE PART NUMBER	BLE BLOWING OFF.	FAR £7-02987-9	EN UNSATISFACTORY R	OT FOUND AND SINCE JER ACTION TAKEN.	FLIGHT	1 LATE ACTING 87AGI 13 AT 8000 LBS LOAD	DICATED.	CK OR FLYING HARDN FORMANCE THAT OCCUM	ER SHOCK TEST TO I	FAR - 7-43433-5
TEST/REPORT NUMBER FAILED COMPONENT NAME	ON-THE COVER WAS REDESIGNED TO PREVENT POSSIBLE BLOWING OFF.	SLV-98-06-3019F Pressure Cartridge-squib	FAILURE HODE-OUT OF TOLERANCE, FOUR UNITS WERE REJECTED WHEN UNSATISFACTORY RESISTANCE READINGS WERE FOUND BETWEEN HE DRIDGE WIRES AND THE CARTRIDGE CASE, FOUND DURING PROCEDURE 69-92764-1. DURING TEST ONE UNIT INADVERTENTLY FIRE SERIAL NUMBER 32129 PER IR WOT2904. BRIDGE WIRE TO CASE RESISTANCE OF THE REMAINING UNITS WERE WITHIN CONVAIR SPEFFICATIONS.	CORRECTIVE ACTION-CAUSE OF DETONATION OF SINGLE UNIT WAS NOT FOUND AND SINCE AN OCCASIONAL DETONATION DURING SCREEN NO TEST CAN BE EXPECTED. UNITS RETURNED TO VENDOR. NO FURTHER ACTION TAKEN.	60C-BKF63-036/L4-7101-00-7108 STAGING LATCH	FAILURE MOE-FAIL TO OPERATE AT PRESCRIBED TIME. POSSIBLY A LATE ACTING STAGING LATCH DID NOT RELEASE UNTIL AFTER T He bstr package degan to move and sheared the Fail safe Bolts at 8000 L85 Load and Either infarted a shock into the 1333 ring or the bolts became phojectiles.	SYSTEM EFFECT-NONE, NO EFFECT IN THE AIRFRAME SYSTEM WAS INDICATED.	VEHICLE EFFECT-FREMATURE VERNIER SHUTDOMN. FOSSIBLY THE SMOCK OR FLYING MARDWARE COULD MAVE RUPTURED THE VI LOX LIN Or bleed valve resulting in the 40 percent drop in VI performance that occurred at staging.	CORRECTIVE ACTION-NOME AT THIS TIME. GOC HAS PROPOSED VERNIER SHOCK TEST TO INVESTIGATE THE POSSIBILITY OF THIS OCC.	CT-96-02-030 SEPARATION FITTING -LATCH- ASSEMBL 7-45435-5 IES
SYSTEM SUB-SYSTEM	RESULTED.  CORRECTIVE ACTION-THE CO	AIRFRANE-A/B BOOSTER-SUSTAINER SEPAR	FAILURE MODE-OUT OF TOLE THE DRIDGE WIRES AND THE , SERIAL NUMBER SZIES PER IFICATIONS.	CORRECTIVE ACTION-CAUSE ING TEST CAN BE EXPECTED.	AIRFRAME-A/B BOOSTER-SUSTAINER SEPAR	FAILURE MODE-FAIL TO OPERATE NE BSTR PACKACE DEGAN TO MOVE 1133 RING OR THE BCLTS BECAME	SYSTEM EFFECT-NONE, 110 E	VEHICLE EFFECT-PREMATURE E OR BLEED VALVE RESULTIN	CORRECTIVE ACTION-MOME A URRING.	AIRFRAME-A/B BOOSTER-SUSTAINER SEPAR BOOSTER SECTION

FAILURE MODE-STRUCTURAL-SEVEN OF THE TEN SEPARATION FITTINGS RECOVERED FROM THE 138D WRECKAGE WENE ANALYZED IN COMM. ECTION WITH MISSILE LOSS. FIVE OF THE SEVEN WERE NOT BEPARATED. TWO WERE SEPARATED APPARENTLY FROM THE EXPLOSION APT EN VEHICLE HAD FALLEN TO THE GROWDARY FAILURE.

CORRECTIVE ACTION-NOME. NO PITTIMS PAILURES MERE INDICATED.

PA66 0066

GENERAL D'AICS

#9# NOT 54	DIFFICULTIES REVIEW-AIRFAAME SYSTEM-AIRBORNE	IAME SYSTEM-AIRBORN	44		
8757EH 8UB-8737EM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA BOURCE PART NUMBER	VEHICLE SITE DATE DIF TIME DIF	PRI VENDOR NAME OTH VENDOR PART NO	
AIRFRAME-A/B BOOSTER-SUSTAINER SEPAR	E7A3981 EXPLOSIVE VALVE	UTP-PET R7-C4504-3	630128	YES CONAX CORP. NO 2780A	000100
FAILURE MODE-STRUCTURAL.	RUCTURAL. DURING VALVE OPERATION OME OF THE COMPONENTS (THE CUTTER) FAILED.	COMPONENTS (THE CUT	TER) FAILED.	٠.	
CORRECTIVE ACTION-GD/C CO	ON-GD/C COGRDINATED WITH THE VENDOR (COMAX) FOR AN ANALYSIS OF THE CUTTER MATERIAL AND HEAT TREATMEN INED TO BE VENDOR QUALITY CONTROL PROBLEM.	OR AN ANALYSIS OF	THE CUTTER MATERIA	IL AND HEAT TREATHEN	
AIRFRAME-A/B BOOSTER-SUSTAINER SEPAR	3LV-9D-06-209F SEPARATION LATCH	FAR 7-45435-5	69-0071- 01 640601	YES BAKER-MANLEY NO Y-45435-5	
FAILURE MODE-EXTERNAL LE UTE WHEN LATCH WAS PRESSU	FAILURE MODE-EXTERNAL LEARAGE. 642 LEAKED PAST THE PISTON O-RING AND OUT THE BLEED HOLE AT A RATE OF 154 CC PER MIN UTE WHEN LATCH MAS PRESSURIZED TO 100 P.S.I. CAUSE MAS AN O-RING DAMAGED AT VENDOR ASSENBLY.	-RING AND OUT THE B RING DAMAGED AT VEN	LEED HOLE AT A RAT NOR 1855/18LY.	E OF 158 CC PER MIN	
CGRECTIVE ACTION-CONFIRE CE OF ASSEMBLY DANAGE DUR ES, PIR RAR SLV-90-06-3TO ALLY INSPECTED FOR DANAGE REIGN MATERIAL, (C) THE C	CGRECTIVE ACTION-COMFIRMED. (1) GD/A BUYER ON AUG 17 1964 INFORMED THE VENDOR OF THIS ANALYSIS TO PREVENT RECURRAN CE OF ASSEMBLY DANAGE DURING VENDOR REWAR OF THE LATCHES. (2) GD/A RECOMMENDED THAT VENDOR IMPROVE ASSEMBLY PRACTIC ES. P.R RAR SLV-90-06-3709. (3) VENDOR REPLY TO VCAR 6748-84 THAT EFFECTIVE SEPT 10. 64 (A) ALL D-RINGS VILL BE VISU ALLY INSPECTED FOR DANAGE PRIOR TO ASSEMBLY. (8) BCDY BORE AND D-RING GROOVE WILL BE INSPECTED AND WIPED CLEAN OF FO REIGN MATERIAL. (C) THE CAP WILL BE INSTALLED IMPEDIATELY AFTER PISTON IS IN PLACE.	INFORMED THE VENOCR 2) GD/A RECOMMENDED THAT EFFECTIVE SEP ND D-RING GROOVE WI TER PISTON IS IN PL	OF THIS ANALYSIS THAT YENDOR INFRC T IO, 64 (A) ALL C LL BE INSPECTED AN	TO PREVENT RECURRAN VVE ASSEMBLY PRACTIC I-RINGS 1/1/LL BE VISU ED MIPED CLEAN OF FO	
AIRFRAME-A/B BOOSTER-SUSTAINER JEPAR	SLV-90-06-209F SEPARATION LATCH, BOCATER/BUSTAINE 7-45435-5 R	FAR 7-19408-9	69-0071- WTR 1 640601	YES BAKER MANLEY NO 7-45435-5	691403
FAILURE MODE-INTERNAL LE Y VENDOR.	FAILURE MODE-INTERNAL LEAKAGE, LEAKED GASEOUS NITROGEN AT 100 PBIG, CAUSED BY AN O-RING DAMAGED AT LATCH ASSEMBLY VENDOR.	OG PBIG, CAUSED BY	AN O-RING DAMAGED	AT LATCH ASSEMBLY B	
CORRECTIVE ACTION-FAILUPE EMBLY, VALVE BOOT BORE AND TALLED IMMESIATELY AFTER PI	OM-FAILUPE CCAFIRHED. PER VCAR 8748-64, DATED 9-17-64, VENDOR WILL INSPECT CARINGS JUST PRIOR TO ASS IY BORE AND O-RING GROOVE WILL BE WIPED AND VISUALLY INSPECTED FOR FOREIGN MATERIALS. CAP WILL BE INS ILY AFTER PISTOM IS IN PLACE, EFFECTIVE FOR ALL NEW AND REWORKED UNITS.	D 9-17-64, VENDOR 'S ISUALLY INSPECTED F LL NEW AND REMORKED	HIL INSPECT OVRIM OR FOREIGN MATERIN UNITS.	IS JUST PRIOR TO ASSILS. CAP WILL BE INS	
AIRFRAME-A/B BOOSTER-SUSTAINTE SEPAR	LV-98-06-277F SEPREATION LATCH	FAR 4-4848-9	289D FACTORY 640519	YES BAKER-MANLEY NO 7-45459-5	
FAILUNE MODE-EXTERNAL LE BEMBLY MEYEALED METALLIC OUNDS. DRAWING ECH BDB41E	FAILUNE MOE-EXTERNAL LEARAGE. AUDIBLE LEARAGE AT THE VENT MOLE AT 180PSI. BURING E.O.P. 335.66 PARA, 4.24.1. DISAG Embly revalled metallic comtamination ca fae opging. Snd cap break amay and tightening torque mere 10 and 18 foot p Unds. Daawing ech 1808412 rebuires 125 plus on minus 23 fuot pounds.	HOLE AT 100PS1. DUM P BREAK AMAY AND TI POUNDS.	ING E.O.P. 335.66 CHIENING TOROUE M	PARA, 4.24.1. DISAS TRE 10 AND 18 POOT P	
COARECTIVE ACTION-CAUSE	ON-CAUSE OF FAILURE MOT CONFIRMED. (1) RAR LV-88-08-3701 RECOMMENDED THAT LATCHES BE DISASSEMBLED AN	V-88-06-3701 RECORE	IENDED THAT LATCHE!	SE DISASSEMSIED AN	
		-		PACK DOST	

GENERAL DYNAHICS CONVAIR DIVISION

D CLEAKED INTERNALLY AFTER ACTUATION AND THAT A DESIGN REVIEW BE HELD TO DETERMINE IF TONGOE WALLES ARE RELIGIOUS.  E. 907A INTER-COMPANY LETTER OF JULY 8, 1344 STATED THAT LATCHES ARE NOT ACTUATED IN FINAL ASSENGY OR CHECKOUT-CHE AT 100 PS1 13 USED ONLY AS A LEAK CHECK. (3) CLE 43781 RELEASED AUG 8, 1344 DID REDUCE ENDCAP TONGUE TO SOLUS ON THAT ASSENGY OR CHECKOUT-CHE ALT 100 PS1 13 USED ONLY AS A LEAK CHECK. (3) CLE 43781 RELEASED AUG 8, 1344 DID REDUCE ENDCAP TONGUE TO SOLUS ANTERAKE-A/B BOOSTER-SUSTAINER SEPAR SEPARATION FITTING, 137 STACE 7-4512 651211 NO  FAILURE MODE-COMPANIANTION. CORPOSION WAS FOUND ON ALL EXPOSED STEEL SURFACES. COKROSION WAS THE RESULT OF BUILD.  FAILURE MODE-CONTAINANTION. CORPOSION WAS FOUND ON ALL EXPOSED STEEL SURFACES. COKROSION WAS THE SEVERITY OF BUILD.  CORRECTIVE ACTION-LUBRICATION AND PRESERVATION ARE NOW IN USE-A) FACTORY FITTING MOULD ELIMINATE THE SEVERITY OF BUILD.  CORRECTIVE ACTION-LUBRICATION AND PRESERVATION ARE NOW IN USE-A) FACTORY FITTING MOULD ELIMINATE THE SEVERITY OF BUILD.  AND THE APPEARS OF THE LEMENTS FOR ONE TEAR WHITE BEING UND AND THE PRESERVANCE LAS FOUND DISCOMMECTED. UNIT CHECKEDAT ASSEDDLY AND FOUND OF THE LEMENTS FOR ONE TEAR WHITE BEING UND FOUND OF CORP. THIS SECTION ASSEDDLY TEAR AND THE ASSEDDLY AND FOUND OF CORP. THIS SECTION ASSEDDLY TEAR AND THE ASSEDDLY ASSEDDLY AND THE ASSEDDLY TEAR AND THE ASSEDDLY THE ASSEDDLY THE ASSEDDLY THE ASSEDDLY THE ASSEDDLY AND THE ASSEDDLY	AND THE BENET HE SEVER HES STATE HE SEVER HES STATE HE SEVER HES STATE HE SEVER HES STATE THE SEVER STATES.  1-2/PALC YES STATES.  1-2/PALC YES HES STATES.		
	MAS-WTR NO NAS THE RESULT WINATE THE SEVER SPECTED AND SPRA 6.7.1 THIS HISS 1-E/PALC VES NO SCORRECTED. UNIT		
	MAS THE RESULT MINATE THE SEVER SPECTED AND SPRA 6.7.1 THIS HISS 6175. 1-E/PALC YES NO SCOMMECTED. UNIT		10 0
8 4 8 8 8	SPECTED AND SPRA 6.7.1 THIS HISS BITES. 1-2/PALC VES NO BCOMMECTED. UNIT		100
R-SUSTAINER SEPAR STATING DISCONNECT ASSEMBLY RT-02431 631210  R-SUSTAINER SEPAR STATING DISCONNECT ASSEMBLY RANGE WAS FOUND DISCONNECT ASSEMBLY RANGE WAS FOUND DISCONNECT BY BEAUTION OF STATION OF	1-2/PALC YES NO BCOMECTED. UNIT		110000
URE UCDE-PREMATURE CPERATION. DURING DPL TO T/P ET-84445, ASSENBLYPANEL WAS FOUND DIS NO GISPOSITIONED-ACCEPTABLE TO ENGINEERING. UNIT NOT FORWARDED TO GO/C FOR ANALYSIS.  ECTIVE ACTION-NOME.  FE-A/D  SP-AS-08-3140F  R-SUSTAINER SEPAR TUBING ASSENBLY-STAGING, PRESSURE ET-45400-53 830484  WRE WODE-STRUCTURAL THO SLEEVES WERE CRACKED. CAUSED BY STRESS CORROSION.	ACOMECTED. UNIT	CHECKEDAT	
ON-MOME.  SG-A8-08-3140F  SEPAR TUBING ASSENDLY-81461NF, PRESBURE E7-45400-33 83USE4  RUCTURAL THO SLEEVES WERE CRACKED, CAUSED BY STRESS CORROSION.			
SEPAR TUBING ASSEMBLY-STAGING, PRESSURE E7-45400-33 63UGE4 RUCTURAL THO SLECVES WERE CRACKED, CAUSED BY STRESS CORROSION.			
	FACTORY YES		1244
CORRECTIVE ACTION-CONFIRMED PER RAR SP-A9-08-3849 THE DESIGN GROUP REQUESTED DELETION FROM 27-45400 OF THE AN-DIG Leeve. Appropriate fersommel Were notified of This Amalysis. All an-eis-e sleeves were purced from stock micessitat NG USE OF THE ALTERNATE HS-2081S. ECH 817376 INSURED USE OF CORRECT BLEEVE.	FRCH ET-45400 OF THE AN-DIG B PURGED FROM STOCK MECESSITATE	HE AN-DIG S	
AIRFRAME-A/B NZ-00-105-105F FAR 139D N BOOSTER-SUSTAINER SEPAR FITTING-FIRST 8TAGE 7-45435 630124	WTR YES		
FAILURE MODE-CONTAMINATION. FOUR OF THE 10 FITTINGS WOULD NOT RELEASE AT THE REBUIRED MAXIMUM PRESSURE DUE TO EXCES SIVE CORROSION. CAUSED BY ENVIRONMENTAL COMDITIONS WITH A CONTRIBUTING CAUSE DUE TO USE OF DISSIMILAR METALS IN THE FITTINGS. 10 COMPLETE FITTINGS FROM 1SED-INCLUDING PARTS REPLACED BY FAR NZ-8D-36-181P.	XIMUM PRESSURE D P DISSIMILAR MET	NE TO EXCES	

CENERAL DIMAHICS CONVAIR DIVISION

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8787EE	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TE	TIME DIF OTH	I VENDOR NAME	
CORRECTIVE ACTION-TECHNIC	TECHNICAL ORDER E1-3H63D-10E DATEF DEC. 1E, 198E, ON CORROSION CONTROL AND TREATHENT WAS DISTRIBU	. 12, 1962, ON CORROS	ON CONTROL A	NO TREAT	ENT WAS DISTRIBU	• • • • • • • • • • • • • • • • • • • •
AIRFRAME.A/B BOOSTER-SUSTAINER SEPAR	SP-SD-DS-3096-F STACING DISCOMMENT, O-RIWA	FAR 27-45407-9	119-D 1-1		YES 60/C	***
FAILURE MOC-LEAKING EXTERNAL, FIRST-87/ Y IN IMPROPERLY INSTALLED O-RING. CORRECTIVE ACTION-RESPONSIBLE PERSONNEL O-RING MILL RE ACCOMP. ISHED, A REVIEW OF	IRST-STA	GE BEPARATION VALVE INBTALLATION WAS REPORTED LEAKING. FAILUTE WAS C. Have been hade aware of this Failure and a closer check on installat Installation and checkout procedures reveals that the Are adequate.	IEPONTED LEAK IND A CLOSER EVEALS THAF	ING. FAIL CHECK ON THET ARE	UTE WAS CAUSED S INSTALLATION OF ADEQUATE.	
AIRFRANC-A'B BOOSTER-SUSTAINER SEPAR		FAR 47 7-45428-7	159D WTR 620915	*		9888
FAILURE MOE-STRUCTURAL. MILAR MATEGIALS-AN AMDOIZE THE CORROSION DARRIER MATE	FAILURE MOCE-STRUCTURAL, THREE SEGHENTS FAILED FROM STRESS CORROBIOM INTERGRANULAR CRACKING. CAUSED BY USE OF DISSI FLAK HATEGIALS-AN AMODIZED ALUMINUM SEGHENT AND TWO CHROME PLATED STEEL PHESS FIT BUSHINGS. PARTIAL DESTRUCTION OF HE CORROSION DARRIER MATERIAL OCCURS AT ASSEMBLY.	SS CORROSION INTERGRANGE PLATED STEEL PHESS	ULAR CRACKIN FII BUSHINGS	6. CAUSED	BY USE OF DISSI DESTRUCTION OF	
COFFECTIVE ACTION- (1) FAI GENES, (2) DESIGN GROUP ENDLY FAILURE AND THIS OCC ) FAILURE HISTORY DOES NOT	COPECTIVE ACTION-(1) FAILURE ANALYSIS REQUESTED THAT SEGMENT HATERIAL BE CHAMED AND THAT DIMENSIONAL TOLERANCE BE CAELED, (2) OESIGM GROUP RECOMMENDS THAT NO CHANGE BE MADE IN OPERATIONAL VEHICLE BECAUSE (A) THIS WAS THE ONLY ASSEMELY FAILURE AND THIS OCCURED ON A HISSILE SUBJECTED TO EXTREME ATMOMPHERIC CONDITIONS NOT MORMALLY ENCOUNTERED. (B) FAILURE HISTORY DOES NOT WARRENT A SERVICE ACTION RETROFT. (3) REF. RAR NZ-90-06-3601.	HENT HATERIAL BE CHAN DE IN GPERATIONAL VEHI EXIMEME ATMONPHERIC CC 17. (3) REF. RAR HZ-9	KED AND THAT CLE BECAUSE ADITIONS HOT 0-06-3601.	DIHENSIC (A) THIS NORMALLY	NAL TOLERANCE BE WAS THE CNLY ASS ENCOUNTERED. (D	
AIRFRANC.A/B BOOSTER-SUSTAINER SEFAR	AC-98-06-153F SEPARATION LATCH D-RING	7A7 7-46405-4	REDAIS ETR	R YES	đ .	999308
FAILURE MODE-LEAN-EXTERNA MAS WARPLO, MEITHER SHOME OF THE ASSEMPLY AND THE SE	EXIERNAL-FITTING LEAKED DURING A SYSTEM CHECK, STATIC O-RING NAS POUND TORN AND THE PISTON O-RING RESHONDED ENTREMED ENTREMED OF LUDRICATION, FAR AG-DB-DB-1ES PROVED THAT THE PISTON O-RING CAN BE LEFT OUT THE SCPARATION NECHANISM WILL STILL OPERATE WITHIN SPECIFICATION,	- CHECK, STATIC O-RING (G-SB-DS-125 PROVED TV FRATE MITHIN SPECIFIC	ATION:	OPN AND T	HE PISTON O-RING CAN BE LEFT OUT	
CORFECTIVE ACTION-CONFIRM VENDOR 9.C. AND FOR THE AS 3 9/8/62 REQUIRED A SPECTF	COMPIRMED. (1.) A CORRECTIVE ACTION REQUEST WAS MADE TO OUTSIDE PRODUCTION INSPECTION FOR BETTER THE ASSEMBLY PROCESS TO BE MONITORED. (2.) TEMPORARY CHANGE AUTHORIZATION 3 TO BOD 338.446 188UK SPECIFIC LEAR CHECK OF EACH SEPARATION FITTING DURING FACTORY SYSTEM LEAR CHECK.	IUEST MAS MADE TO OUTS (E.) TEMPORARY CHANGE FITTING DURING FACTO	IDE PRODUCTI AUTHORIZATI AY SYSTEM LE	CN INSPEC ON 3 TO E AK CHECK.	TION FOR BETTER OF 338.466 188UE	

## GENERAL DYNAMICS CONVAIR DIVISION

15 JUN 1966

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CONALIR DIVISION

AIRFRANC-A/D AC					
	AG-98-08-123F SEPARATION LATCH D-RING	FAR 87-45455-5	620327 ETR	7£4	•
FAILUKE MODE-LEAK-EXTERNAL-A BLOMING LEAK ABRADED STATIC O-RING. THE O-RING WAS DAMA AT THIS DID NOT AFFECT SEPARATION PRESSURE.	FAILUKE MODE-LEAK-EXTERNAL-A BLOMING LEAK FROM THE VENT HOLES DEVELOPED. IT WAS DUE TO AN UNLUBRICATED AND SEVERELY Adraded Static O-Ring. The O-Ring was danaged on the threads. The Piston O-Ring was missing but tests determined th It this did not affect separation pressure.	OCES DEVELOPED. 17 MA. ADS. THE PISTON O-RINI	S DUE TO AN UNE	UBRICATED AND SEVE UT TESTS DETERMINE	ELY TH
CORRECTIVE ACTION-CONFIRMED, REPLY TO RITEOL OF ASSENDLY OPERATIONS WAS REQUESTED ANY CHANNEL AUTHORIZATION 3 TO EOF 335.664 NG DURING THE FACTORY SYSTEM LEAK CHECK.	CORECTIVE ACTION-COMFIRMED, REPLY TO RAR A4-98-08-137 LISTS THIS GD/C ACTION. 1. MORE STRINGENT VENDOR QUALITY CON TROL OF ASSEMBLY OPERATIONS WAS REQUESTED OF OUTSIDE PRODUCTION INSPECTION BY J. CORRECTIVE ACTION REQUEST. 2. TEMPOR ARY CHANNEL AUTHORIZATION 3 TO EOF 335.688 WAS ISSUED 9/8/82 REQUIRING A SPECIFIC LEAK CHECK OF EACH SEPARATION FITTI ME DURING THE FACTORY SYSTEM LEAK CHECK.	813 THIS GO/C ACTION. CTION INSECTION BY J R REQUIRING A SPECIFIC	1. MORE STRING CORRECTIVE ACT C LEAK CHECK OF	ENT VENDOR QUALITY ION REQUEST, 2. TE EACH SEPARATION F	2 % E
AIKFRAME-A/B BOOSTER-SUSTAINER SEPAR 94	A-9F-06-121F SEPARATION LATCHES	FAR 7-45455-5	590 820519	32,	98839
FAILURE HODE-STRUCTURAL-ALI N SYSTEM MAS EXERCISED MITH TIVITY CHARACIERISTICS MERE ED OUT.	FAILURE MOE-STRUCTURAL-ALL TEN FITTIMS SHEARED DUE TO IMPROPERLY APPLIED TENSILE IMPACT LOADING WHEN THE HOLD DOM N SYSTEM WAS EXERCISED WITH THE MISSILE STILL IN STRETCH. POOR ELONGATION PROPERTIES AND RELATIVELY POOR NOTCH SENSITIVITY CHARACIERISTICS WERE MACHIFIED BY THE IMPACT ON THE FITTINGS. FAULTY DEHBOW VALVE AND SYSTEM WERE BEING CHECK ED OUT.	WPROPERLY APPLIED TEN MOOR ELOMEATION PROPE FITTIMGS, FAULTY BEN	SILE IMPACT LON RTIES AND RELAT BOW VALVE AND 9	DING WEN THE HOLD IVELY POOR NOTCH SI YSTEM WERE BEING C	D DOM SENSI CHECK
CORRECTIVE ACTION-1, CIC 12 43426-4, 7-45429-8, 7-43433- 123.E7 AND ON, AND ETD E7-55 ALVE, A FUNCTIONAL AND STRUC	CORECTIVE ACTION-1. CIC 12028, WANGTAI, RELEASED 10/29/81 CHANGED GRAIN DIRECTION OF THE FITTING. CHANGE WAS ON 7-45429-B. 7-43429-B. 7-4342-B. 7-4442-B. 7-442-B. 7-442-B. 7-442-B. 7-442-B. 7-442-B. 7-442-B. 7-4	1 CHANGED GRAIN DIRECTEMS ELD 27-0004-ES; 1 (CR. TO MISSILE RE-INSTHAMISH PLUS REVALIDAT	TION OF THE FIT ES. 29. 31 AND TALLATION INCLUION PER CINCK L	TIME. CHANGE MAS ON 7- ON, AND EID ET-DOGG-ES DED REPLACING BENBOM V	, «>
AIRFRANG-A/D BOOSTER-SUSTAINER SEPAR BH	A-88-08-103 BRACKET-MOUNTING, LATCH NECHANISM	FAR H 27-45404-9	1F 8YC.	YES CONVAIR NO	•
FAILURE MODE-STRUCTURAL-UNI PPLICATION TO THE RELEASE H RELEASE HOOK POBITIONING SC	FAILURE MODE-STRUCTURAL-UNIT REMOVED FOR A CRACK AT THE R7-49417-7 PIN MOLE. THE FAILURE INDICATED EXCESSING LOAD A PLICATION TO THE RELEASE HOOK ABSEMBLT. IT MAS CONCLUDED THE OVERLOADING MAS INDUCED BY INCORRECT ADJUSTMENT OF THE RELEASE HOOK POSITIONING BCREW.	7-45417-7 PIN HOLE. TI THE OVERLOADING MAS II	HE FAILURE INDI NOUCED BY INCOM	CATED EXCESSING LO RECT ADJUSTMENT OF	LOAD A
CORRECTIVE ACTION-SHOP PERS	ACTION-SHOP PERSONNEL INSTRUCTED TO INCREASE SURVEILLANCE DURING LATCH ADJUSTHENT AND INSPECTION.	URVEILLANCE BURING LAY	TCH ABJUSTKENT	IND INSPECTION.	
AIRFRAME-A/B BOOSTER-BUSTAIMER BEPAR	AE61-128271-601-00-06.	7,1047	6F 11 611220 129	YES	

PAGE 0071

4:3

GENERAL DYNAMICS CONVAIR DIVISION

13 JUN 1966

SCO-SYSTEM	FAILED COMPONENT NAME	PART NUMBER	DATE DIF	DATE DIF TIME DIF OTH	TH VEHOOR PART NO	
SYSTEM EFFECT-EXPLOSION.	OSION. HYDRAULIC SYSTEM LEAK BELIEVED CAUSED BY THE HINOR EXPLOSION AT STACING.	AUSED BY THE HINGR E	XPLOSTON A	F STACING.		*****
VEHICLE EFFECT-LOSS OF V	S OF VEHICLE STABILITY.		:			
CCGRECTIVE ACTION-ADDED AIRFRANE-A/B BOOSTER-SUSTAINER SEPAR	ADDED FUEL STAGING VALVES TO PREVENT POOLS OF PROPELLANT FROM FORMING.  SB-06-076  PAR LATCH, DOOSTER RELEASE, PISTON 27-45409-5 911011	OLS OF PROPELLANT FR FAR E7-45409-5	18E 611011	ETR	YES CONVAIR NO	
FAILURE MOE-STRUCTURAL. THOUGH PLATING CHIPS WER TO BE OF EXCESSIVE THICH	FAILURE MODE-STRUCTURAL. THE ITEM WAS REMOVED FOR CHIPPED CHROMIUM PISTON PLATING. UNIT FUNCTIONED SATISFACTORILY A LTHOUGH PLATING CHIPS WERE FOUND IN THE O RING SLOT. THIS CONDITION COULD RESULT IN O RING DANAGE, PLATING MAS FOUND TO BE OF EXCESSIVE THICKNESS. SECOND OCCURRENCE REPORTED ON FAR 98-06-079.	CHECHTUM PISTON PLA CONDITION COULD RESU ON FAR 98-06-079.	TING. UNIT	FUNCTIONED NG DAMAGE.	SATISFACTORILY A PLATING WAS FOUND	
CORRECTIVE ACTION-SURVE) LEM THESE LATCHES ARE PRO	I-SURVEY NO. 60 RELEASED TO CHECK ALL E AI ARE PROCURED FROM A VENDOR.	E AND F VEHICLES FOR THIS DISCREPANCY SINCE DATE OF THIS PROB	IS DISCREP	AMCY BINCE	DATE OF THIS PROB	
AIRFRANE-A/B BOOSTER-SUSTAINER SEPAR	9F-0E-013 SEPERATION LATCH	FAR E7-45402-801	51E 610731	2 >	NO YES	*****
FAILURE HODE-STRUCTURAL. THE 27-45417-7 PIN. CAUSE T OF ADJUSTMENT. A SECOM	FAILURE HODE-STRUCTURAL. LATCH FAILED FROM A TEMBION LOAD IN EXCESS OF DESIGN VALIE. TEAR OUT WAS AT THE MOLES FOR HE 27-45417-7 PIN. CAUSED BY AN IMADVERTANT RIDE LOAD TO THE MISSILE ADAPTER FROM THE BOOM NOSE CLAMP, MHICH WAS OU OF ADJUSTMENT, A SECONDARY FAILURE CAUSED BY INPROPER HANDLING.	IH EXCESS OF DESIGN THE MISSILE ADAPTER WOLING.	VALVE. TE	AR CLIT MAS	AT THE HOLES FOR AMP, WHICH IMB OU	
CORRECTIVE ACTION-CONFIS THE NOSE CLAMP ADJUSTNES	CORRECTIVE ACTION-CONFIRMED VISUALLY, A TWX WAS ADDRESSED TO FIELD PERSONNEL RESUESTING HIMOST CAUTION WHILE PERFOR HING MOSE CLAMP ADJUSTMENT AND STRICT ADMERENCE TO MISSILE ERECTION PROCEDURE.	TO FIELD PERSONNEL ERECTION PROCEDUME.	REDUESTING	HINOST CAU	TION WHILE PERFOR	
AIRFRANE-A/B BOOSTER-SUSTAINER SEPAR	90-02-012 SEPARATION LATCH	7A7 7-45403-0	970 810605	X X	YES	9080
FAILURE MODE-BTRUCTURAL-DI ENA B NATING, NORMAL ATLAS ELY MOOR NOTCH RENSITIVITY	FAILURE MODE-STRUCTURAL-DÍSCOMMECT FITTIME ABSEMBLIES CRACKED UNDER A 19,000 POUND STRETCH LOAD AS SPECIFIED FOR AG LAS BATIME, HORMAL ATLAS STRETCH LOAD IS 10,000 POUNDS. CONCLUDED CAUSE WAS HOOR ELONGATION PROFERTIES AND RELATIV LY POOR MOTCH RENSITIVITY CHARACTERISTICS AFTER APPLICATION OF A MONSYMETRICAL STRETCH LOAD.	CKED UNDER A 15,000 CONCLUDED CAUSE WAS ON OF A MONSYMETRICA	POUND STRE POOR ELONG L STRETCH	TCH LOAD AS ATION PROPE LOAD.	SPECIFIED FOR AG RITES AND RELATIV	
CORRECTIVE ACTION-COMPTR	CORRECTIVE ACTION-CONFIRMED VIBUALLY. WAP SPRO, DATED JULY 6, 1981, WAB IBBUED TO INVESTIGATE CAUSE OF FAILURE AND O DETERMINE WAS CORRECTIVE ASSESSED.	Y 6, 1981, WAB IBBUT E PROPER FUNCTION OF	D TO INVES	TIGATE CAUS T ABBENGLY.	E OF PAILURE AND	

15 JUN 1966

# GENERAL DYNAHICS CONVAIR DIVISION

	DIFFICULTIES REVIEW-	DIFFICULTIES REVIEW-AIRFRAME SYSTEM-AIRBORNE	ñ				
STOTEN SUG-SYSTEM	TEST/REPORT NUMBER FAILED COMPOMENT NAME	DIF DATA SOURCE PART HUMBER	VEHICLE DATE DIF	SITE TIME DIF	9 0 1 1 1	VENDOR NAME VENDOR PART NO	
ATRITRAME-A/D BOOSTER-SUSTAINER SEPAR	AZC-E7-377/P4-405-00-10 SEPARATION LATCH	FLIGHT	100 580808	3.5	ž ž		:
FAILURE MODE-FAIL TO OT THE COMAK VALVE OF THE	TO CPERATE AT PRESCRIBED TIME. POSSIBLE FAILURE OF THE PNEUMATIC SYSTEM IN PROVIDING PRESSURE TO THE BOOSTER SECTION SEPARATION SYSTEM.	E FALLURE OF THE PHEU	4ATIC 8YBTI	OR NI WI	1017	ic Paessure 10	
SYSTEM EFFECT-NOME.							
MPROPI OSTER		DID NOT SEPARATE FROM TELY SOU NAUTICAL HILI	THE VEHICE	E. AB A	RESUL	T OF THE ADDED	
CORRECTIVE ACTION-THE	PRESSURE DOMNSTREAM OF THE COMAX VALVE WILL BE INSTRUMENTED ON FUTURE PLICHTS.	ALVE WILL BE INSTRUME	TED ON FU	TURE PLIG	HT8.		
SEPAR	AZC-£7-D77/P4-405-00-10 COMAN VALVE-BOOSTER SECTION	FLIGHT	10D 580909	13.	YES		<b>35</b> 7 60
FAILUKE MODE-FAIL TO C	FAILUKE MOE-FAIL TO OPERATE AT PRESCRIBED TIME, POSSIBLE FAILURE OF THE EXPLOSIVE TYPE COMAN VALVE, PREVENTIMG PME Umatic pressure from activating the booster section separation fittings.	E FAILURE OF THE EXPLOATION FITTINGS.	MIVE TYPE	COMAN VA	Ä	PREVENTING PME	
ERATIO	SYSTEN EFFECT-OPERATION DOES NOT START. THE BOOSTER SECTION DID NOT SEPARATE FROM THE VEHICLE.	ION DID NOT BEPARATE	RON THE VE	HIGHE.			
MPROPI	VCHICLE EFFECT-IMPROPER TRAJECTORY, AS A PESULT OF THE ADDED WEIGHT OF THE BOOSTER SECTION, IMPACT OCCURRED APPROXI MATELY 500 MUDICAL MILES SHORT OF THE PLANKED RANGE.	DDED WEIGHT OF THE BOX	MTER SECTI	ON, INPA	8	CURRED APPROXI	
CORRECTIVE ACTION-THE	I-THE FRESSURE DOMISTREAN OF THE CONAX	THE COMMX VALVE WILL DE INSTRIBENTED ON FUTURE FLIGHTS.	ITED ON FU	TURE FLIG	H 78.		
AIRFRAME-A/B SUSTAINER-FAYLOAD SEMAR	6954361.1 PYROTECHNIC CONTROL UNIT	UTF-SLT 68-61070-1	<b>660207</b>		YES	60/C	990241
FAILUKE MOE-DURING PR WAS POTED TAPPING WOUL RELAY KZI, TERMINAL 1.	FAILUKE MOE-DURING PROOF CYCLE AFTEF SIT TEMP-ALT- VIBRATION AN INTERMITTEN CONDITION IN CIRCUIT PIN JSA TO GROUND WAS MOTED TAPPING WOULD INCREASE RESISTANCE AND THEN DROP BACK TO SE TO 40 CHMS. INSPECTION REVEALED BROKEN LEAD AT RELAY RZ: TERMINAL 1.	ATION AN INTERNITTEN (P. BACK TO SE TO GO ON!	CONDITION 1	IN CERCUI	1214	BROKEN LEAD AT	
CORRECTIVE ACTION-NO O	CORRECTIVE ACTION-NO DESIGN ACTION TAKEN SINCE THE PAILURE OCCURED DURING EXTENSIVE HIGH LEVEL VIBRATION WHICH IS IT REPRESENTATIVE OF THE FLIGHT ENVIRORMENT.	RE OCCURED DURING EXTI	CHS/VE HIGH	. LEVEL. V	IBRAT	104 WICH 15 K	
SEPAR	SECASOL PEROFECHMIC CONTROL UNIT	UTP-ETT 69-6107U-1	660110		YES	YES 60/C 69-61070-1	<b></b>
FAILURE MODE-DURING VICEOSECOMDS, INTERNAL B SHONTING THE CENTER	FAILURE MODE-DURING Y AKIS CINE RANDOM VIBRATION INDICATIONS OF CONTACT CLOSURES BETWEEN JE AND J3D LONGER THAN 10 Microsecomos, imternal inspection revealed an extra uot on Fleb, 18-1 mmich mad been Logsened During Vibration and 1 as smorting the center completor of Fleb to 11s duter complete.	IONS OF CONTACT CLOSUM H PLEB, TB-1 MATCH MAI DUCTOR.	IES BETWEEN ) BEEN LOOI	THE AND	130 L	CONTACT CLOSURES BETWEEN JE AND J3D LONGER THAN 10 TB-1 MMICH MAD BEEN LOOSENED DURING VIBRATION AND M	
							_

GENERAL IN MICS

11 1UN 1088

DIFFICULTIES REVIEW-AIRFRAME SYSTEM-AIRBORNE

-3-547 E. 19-63 FART-CHARD ON FLE FLIGHT ARTICLES TO CHECK TORGOL AND TORGOL-FAIRT ALL THREADED F 5-54861.1 69-61070-1 69-61070-1 69-61070-1
FAILURE MODE-FOUR OUT-OF-TOLERANCE RESISTANCE MEASUME- MENTS WERE FOUND AFTER TEMM-ALT-HUMIDITY TEST OWE 120 Resistor has fractored Lom Insulation resistance due to comdensation Learage between exposed Relay Terminals.
CORRECTIVE ACTION-QUALITY CONTROL DIRECTED TO TAKE ACTION TO ASURE THAT FRACTURED RESISTORS ARE DETECTED BY INSPECT ON LOW INSULATION RESISTANCE IS HORMAL FOR AN OPEN-HARMESSED ASSEMBLY UNDER THESE CONDITIONS.
NZ-9D-06-201C Sauib, ELECTRIC, JETTISON
FAILURE MODE- OUT OF TOLERANCE, THREE 980189 MAD A LOW RESISTANCE- 0.025 OMM. ALLOMABLE LIMITB ARE 1.2 TO 1.8 CAMS CAUSE NOT KNOMM. ANALYSIS CANCELLED BY TWA VAN SAM 7-14-118 DATED 640714. CORRECTIVE ACTION-FAILURE NOT CONFIDED, NO CHARRETTEM ACTION TAKEN.
CT-98-06-066P FAR STACHWE DISCONNECT LANYARD RELEASE E7-D2136-1
FAILURG-HOOG-EREHATURG CPURATION, UNIT BEJECTED WIEN DISCONGCT EJECTED WIEN THE BYSTEH WAS PRESSURIZED FROM A SROU D Source: Cause of Failure was not determined.
CORRECTIVE ACTION-ETR REGUESTED TO CHECK IT& PLAMMING AND TEST PROCEDUMES TO INSURE CAUTION MOTE, CONCERNING POSITI IN OF THE RELEASE PIN, IS INCORPORATED.
VENDOR OF ! RETARDING ROCKET
FAILURE MODE-FAIL TO OPERATE AT PRESCRIVED TIME. IGNITER FIRED BUT THE ROCKET MOTOR FAILED TO IGNITE. FIRING COMDITIONS WERE -40 DEGREES F AND AT VACUUN CONDITIONS.
TCP ARBO DATED 10 MARCH 1964; POUNC THE PROBLEM TO BE UNAUTHORIZED CHANGES IN THE 16MITER DESIGN . A MEM DESIGN WITH A POMER CARTRIDGE (1 AMP/1 WLTT) WAS QUALIFIED IN TESTS OF 10 ROCKET MOTORS.

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GENERAL DYNAMICA CONVAIR DIVISION

15 JUH 1965

•		DIA ILULIALA ARTEMANATARAR GIGIRAANAKAR	TARE STRIETS ALKENIN	•			4	
<b>'</b>	BYSTEN BLG-BYSTEH	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA BOURCE PART HUNDER	VEHICLE DATE DIF	SITE TIME DIF	PRI VE	PRI VEHDOR NÁME OTH VEHDOR PANT NO	
	) DE \$1 G	HATES THE NEW IGNITER.						100100
	AIRFAAHC-A/B BUSTAINER-PAYLOAD SEPAR	A0182-0107/11-401-03-161 RETROROGRET-16M1TER	FLIGHT	1810	A-3 287	7 C S	ATLANTIC REBEA RCH	000000
<del></del>	FAILURE MODE-FAIL DURING THE RETROROCKETS, CRACK IDE BY SIDE INSTEAD OF ON	DURING OPERATION. HISSILE ACCELERATION DATA INDICATED CHARACTERISTICS OF CRACKED GRAIN BURNING IN CRACK COULD RESULT FROM PREASURE BUILDUP CAUSED BY IGHITERS (TWO IN EACH ROCKEY) BEING BLOWN OUT B D OF ONE BEHIND THE OTHER.	TA INDICATED CHARAC Caused by Ighiteral	TERISTICS TWO IN EAC	OF CRACKE H ROCKET)	D CRAI	IN BURNING IN	
	SYSTEM EFFECT-ERRATIC OF	ATIC CPERATION. GRACK IN THE GRAIN CAUSED UNEVEN BURNING OF SOLID PROPELLANT. NO ADVERSE EFFECT ON	UNEVEN BURNING OF 8	OLID PROPE	LLANT. NO	ADVE	NOE EFFECT ON	
	VEHICLE EFFECT-NOWE.							
	CORRECTIVE ACTION-UNKNOWN.	ż						,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	AIRFRAHE-A.B SUSTAINER-FAYLOAD SEPAR	AE62-0103/32-402-00-137	FLIGHT	1370	B2 304.5	22		:
	FAILURE WODE-FAIL TO OPERATE AT PRESCRIBED TI INDICATED UY A 0.4 DEG/SFC DECREASE IN THE MIS 1.11 TO 1.37 SECONDS LATER, INPULSES IN THE PO OROCD, INDICATING DOIN YEMICLES WERE ATTACHED.	FAILURE WODE-FAIL TO OPERATE AT PRESCRIBED TIME- A FAILURE OF THE RE-ENTRY VEHICLE UMBILICAL TO EJECT PROPERLY MAS INDICATED DY A 0.4 DEGASEC DECREASE IN THE MISSILE AIRFRAME ROLL RATE AND A YANKING INDICATION IN THE YAW PLANE, AT 1.11 TO 1.57 SLCKUS LATER, INPULSES IN THE FORM OF MHOCKS TYPICAL OF AIRFRAME BURFING THE AL-ENTRY WHICLE MERR DEC ORDED, INDICATING DOTH VEHICLES MERE ATTACHED.	OF THE RE-ENTRY WEN ROLL RATE AND A YAN YPICAL OF AIRFRANE	ICLE UMBIL KING INDIG BUCFING TO	ICAL TO E ATION IN	THE Y	PROPERLY WAS AM PLANE, AT ICLE WERE REC	
	BYSTEH EFFECT-NONE.							
	VEHICLE EFFECT-LOSS OF V	VEHICLE EFFECT-LOSS OF VEHICLE STABILITY- VEHICLE ATTITUDE MAS CHANGED.	WAS CHAMPED.					
	CORRECTIVE ACTION-NOME.	entrement of the species of the second of th						
	AIRTRAME-AZE BUSTAINER-PAYLOAD SEPAR	AESG-D937/P3-502-D0-13 RETACROCKET WIRING CIRCUITRY	P.1947	13E 610313	13 358.8	<b>2</b> 2		
	FAILURE HODE-ELECTRICAL	SHORT. DURING RETRO-ROCKET FIRING A SHORT IN THE RETRO-ROCKET MIRING OCCURRED.	SHORT IN THE RETRO	-ROCKET W	RING OCC	AREO.		
	SYSTEM EFFECT OPERATION TOO LOW, THE ES VD (NUMBER 16 AND NUMBER 17) DROPPED 16 NOLTS.	STRIEH EFFECT-OPERATION TOO LOW, THE EG VDC MISSILE POWER LEVEL DROPPED 1.0 VOLT AND THE HIGH POWER SWITCH OUTPUTS NUMBER 16 AND NUMBER 171 DROPPED 16 WOLTS.	EVEL DROPPED 1.0 VC	LT AND THE	\$ 3 1	AS AS	ITCH OUTPUTA	
	VEMICLE EFFECT-MONE, THE SHORT SOCIETY FIRE FROGE OCCURRED ON VEHICLES SE AND SEA	VEHICLE EFFECT-NOME, THE SHORT AND RESULTANT LOW WOLTAGES DID HOT EFFECT THE VEHICLE OR 178 SYSTEM SIMILAR DROMOUTS SOCIABLE IS THE FINAL PROBLEM. SIMILAR DROMOUTS OCCURRED ON VEHICLES SE AND SE.	ID HOT EFFECT THE V H DID HOT CONSTITUT	ENICLE OR	178 EYSTE	2 H	CE THE RETRO- ILAR DROPOUTS	
	CORRECTIVE ACTION-TO PRECLUD RATED ON BUBBEBUENT VEHICLES.	CORRECTIVE ACTION-TO PRECLUDE SMORTING PROBLEMS AFFECTING HIGH POMER SHITCH FUNCTIONS CURRENT LIMITERS WERE INCORPO ATED ON SUBSEQUENT VEHICLES.	IIAN POMER BHITCH FL	NCTIONS C	MRENT LIV	17.01	MERE INCORPO	
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VEHICLE EFFECT-MOME, PROGRAMMER CIRCUIT BOARD BURNED OUT AFTER ALL SWITCHING FUNCTIONS MAD BEEN COMPLETED.

CONVAIR DIVISION

*** ***	DIFFICH, TIES NEVIEW-AINFNAME SYSTEN-AIRBORNE	AHE SYSTEN-AIRBORIE	ы			
878767 808-878787	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA BOUNCE PART NUMBER	VEHICLE DATE DIF	VEHICLE SITE PRI DATE DIF TIME DIF OTH	VENDOR HARE	
AIRFAAME-A/B BUSTAIMER-PAYLOAD SEPAR	AE60-0856/P3-501-00-08 RETRO-ROCKET WIRING	FLICHT	9E 1	13 YES 348.47 NO		00000
FAILURE MODE-ELECTRICAL 8	FAILURE MODE-ELECTRICAL SHORT-DURING RETROROCKET FIRING A SHORT OCCURRED. IN THE WIRING CIRCUITRY OF THE RETROROCKE S.	ICRT OCCURRED. IN TI	HE WIRING C	IRCUITRY OF	THE RETROROCKE	
SYSTEM EFFECT-OPERATION T	SYSTEN EFFECT-OPERATION TOO LOM-THREE PROGRAMMER BMITCH OUTPUTS DROPPED SO PERCENT TO 14 WOLTS DUE TO THE MIRING BH RT.	PUTS DROPPED SO PER	CENT TO 14	WOLTS DUE 1	O THE WIRING BH	
VEHICLE EFFECT-NOME, THE P OF CURRED ON VEHICLE BE.	VEHICLE EFFECT-NOME, THE SMITCH OUTPUTS EFFECTED ARE NOT REQUIRED DURING OR AFTER RETROROCKET FIRING, A SIMILAR DRO OCCURRED ON VEHICLE GE.	AUIRED DURING OR AF	TER RETRORG	CKET FIRITE	. A SINILAR DRO	
CORRECTIVE ACTION-130LATI	CORRECTIVE ACTION-ISOLATION PROTECTION ADDED TO LATER VEHICLES.	LES.				
AIRFRAME-A/B SUSTAINER-PAYLOND SEPAR	AC-60-0045/31-508-44-03 Sust. Thrust Chamber Boot	CAPTIVE 27-77011-1	3E 3	51 YES		0000 T
FAILURE MOE-STRUCTURAL"	FAILURE MOE-STRUCTURAL- BOUT INCURPED SIGNIFICANT DANAGE DURING PIRING.	unng piring.	٠			
SYSTEM EFFECT-NONG- NO EN	SYSTEM EFFECT-NONG- NO EVIDENCE OF A MOT BOATTAIL ENVIRONMENT WAS MOTED IN THE DATA.	HT MAS MOTED IN THE	DATA.			
VEHICLE EFFECT-NONE.						
COPTECTIVE ACTION-BOOT WAS IND AND REPLACED.	S IRO AND REPLACED.					
AIRFRAME-A/B 8US-AINER-PAYLOAD SEPAR	AESO-0746P1-401-00-74 Retrorocket Circuitry	r.ient	760 1 600916 3	11 YES 508 NO	_	••77••
FAILURE MODE-SHORT (ELECT). SHORT E OCCURENCES ON VEHICLES 54D AND 060.	FAILURE MODE-S-ORT (ELECT). SHORT IN THE RETROROCKET JOHITER CIRCUITRY OCCURRED DUMING RETROROCKET FIRING. SIMILAR CCURRENCES ON YEHICLES 54D AND 660.	CIRCUITAY OCCURRE	DUMING RE	TROROCKET F	İRING. BIHILAR	
STATEM EFFECT-NOME. NO EF	SYSTEM EFFECT-MOME. NO EFFECT ON SEPARATION BUT SHORT MAS EVIDENCED BY SLIGHT DROPS IN OTHER PROGRAMMER OUTPUTS.	VIDENCED BY SLIGHT	DROPS IN OT	HER PROGRAM	HER OUTPUTA.	
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-BECAUSE OF T	CORRECTIVE ACTION-BECAUSE OF THIS AND OTHER SIMILAR OCCURRENCES, CURNENT LIMITERS NERE EVENTUALLY ADDED TO PROGRAMM S HIGH POMER SWITCH CIRCUITRY,	WEE, CURRENT LIHITI	CRS WERE EV	ENTUALLY AD	DED TO PROSPANN	
AIRFRAME.A/B Sustainer-Paticad Separ	AEGG-0940/P1-401-00-66 AETROROCKET	FLIMT	660 900912 Z	11 YES 292.31 NO		
PAILURE MODE-ELECTRICAL R	FAILUNE MODE-ELECTRICAL INORT. RETROROCKET SOUIS WIRING BHORTED TO BHIELD GROUND DURING RETROROCKET FIRING.	ITED TO BHIELD GROW	ND DURING N	ETROROCKET	FIRIM6.	,
SYSTEM EFFECT-NONE. NO DE	BYSTEM EPFECT-MOME, NO DETRINENTAL EPFECTS TO ATATAME.					

GENERAL DYHAHICS CONVAIR DIVISION

15 JUN 1866

	FAILED COMPONENT NAME	PART NUMBER	DATE DIF TIME DIF	OTH VENDOR PART NO	
CORRECTIVE ACTION-CURRE	CORRECTIVE ACTION-CURRENT LIMITERS PLACED IN PYROTECHNIC CIRCUITRY TO PROTECT OTHER ELECTRICAL EQUIPMENT.	CIRCUITAY TO PROTECT	OTHER ELECTRICAL E	BUI PHENT.	210060
AIRFRAME-A/B	AE60-0540/P1-404-00-08 LATCH-SEPARATION	FLIGHT	66D 11 600812 60	YES 60 CONVAIR NO	120031
FAILURE MODE-FAIL DURIN UCH LATERAL MOVEMENT OF DING MODE OSCILLATIONS N	FAILURE MODE-FAIL DURING OPERATION, R/F SEPARATION LATCHES, ORIGINALLY DESIGNED FOR THE MKII WARHEAD, ALLONED TOO M UCH LATERAL MOVEMENT OF THE RVX-EA RELATIVE TO THE ADAPTER. MON-LINEAR PIVOTING OF THE R/V MASS SET UP EXCESSIVE BEN DING MODE OSCILLATIONS WHICH CEASED ABRUPTLY AT 112.5 SECONDS WHEN 3UND IV LATCH IS BELIEVED TO MAVE TIELDED.	S, ORIGINALLY DESIGNE . MON-LINEAR PIVOTIM NDS WHEN 2UAD IV LATE	D FOR THE WATE WAS A OF THE R/V WASS A	HEAD, ALLOWED TOO H ET UP EXCESSIVE BEH AVE YIELDED.	
SYSTEM EFFECT-NOME. EXC DS HAD NO DETRIMENTAL EF	SYSTEM EFFECT-NOME. EXCESSIVE BENDING MODE CACILLATIONS CASERVED BEGIMIING AT 80 SECONDS AND CEASING AT 112.5 SECONDS AND DESIME AT 112.5 SECONDS AND CEASING AT 112.5 SECONDS HAD NO DETRIMENTAL EFFECTS ON AIRFRAME EXCEPT YIELDING OF QUAD IV LATCH.	BSERVED BEGINNING AT OF QUAD IV LATCH.	80 SECONDS AND CEA	SING AT 112.5 SECON	
VEHICLE EFFECT-NONE HIS	VEHICLE EFFECT-HONE HIBBION SUCCESSFULLY COMPLETED INCLUDING SATISFACTORY R/V SEPARATION BY PROGRAMMER COMMAND.	ING SATISFACTORY R/V	SCPARATION BY PROC	RAMER COMMAND.	
CORRECTIVE ACTION-DESIG	-DESIGN TOLERANCES FOR LATCHES TIGHTENED TO CAUSE CONSTANT-COMPRESSION CONFIGURATION.	TO CAUSE CONSTANT-CO	HPRESSION CONFIGUR	A710N.	
AIRFRANE-A/B SUSTAINER-PAYLOAD SEPAR	AEG-0316/82-403-00-25 RETHOROCKET	<b>п</b> .1947	250 0-2 600422 315.93	YEA	10000
FAILURE MODE-OUT OF TOL AINST THE TANK SURFACE.	OF TOLERANCE. DEFLECTION OF THE RETHOROCKET THRUST VECTOR DUE TO EXPANSION OF THE EXHAUST GASES AG	KET THRUST VECTOR OU	TO EXPANSION OF	HE EXMAUST GABER AG	
SYSTEM EFFECT-NONE.					
VEHICLE EFFECT-LOSS OF SLBSEBUENT COLLISION OF	VEHICLE EFFECT-LOSS OF VEHICLE STABILITY. THE DEPLECTED THRUST VECTOR RESULTED IN A MISSILE MOSE DOWN MOVEMENT AND LOSSEAUENT COLLISION OF THE TAME SECTION ADAPTER WITH THE RE-ENTRY VEHICLE.	HRUST VECTOR RESULTED RE-ENTRY VEHICLE.	IN A MISSILE HOS	DOM MOVEMENT AND	
COFRECTIVE ACTION-RETRO	-RETROSCICET INSTALLATION HODIFIED TO INCLUDE A DUCT OVER THE RETROPOCHET HOZZLE EXTENDING BEYOND MG TO POSITIVELY MAINTAIN THE DESIGN THRUST VECTOR.	ICLUDE A DUCT OVER THI	. RETROPOCICET NOZZI	E EXTENDING BEYOND	
AIRFRAME-A/B BUSTAINER-PAYLOAD SEPAR	A7C-27-034/P3-403-00-14 RETROROCKET	FLIGHT	140 13 590911 319.72	YES NO	:
FAILURE MOE-OUT OF TOL	OF TOLERANCE. DEPLECTION OF THE RETROROCKET THRUST VECTOR DUE TO THE EXPANSION OF EXHAUST GASES AS	KET THRUBT VECTOR DU	TO THE EXPANSION	OF EXHAUST GASES AG	
SYSTEM EFFECT-NONE.					
WEMICLE EFFECT-LOSS OF 1.0 DEGREES PER SECOND	355 OF VEHICLE STABILITY. THE DIFLECTED THRUST VECTOR RESULTED IN A MISSILE WOSE DOWN PITCH SECOND, AND SUBSEQUENT COLLISION OF THE TANK SECTION ADAPTER WITH THE RE-ENTRY VEHICLE.	THRUST VECTOR DESULTE	IN A MISSILE WOS	DOWN PITCH RATE OF THICLE,	_,
CORRECTIVE ACTION-RETRO	-RETROROCKET INSTALLATION MODIFIED TO INCLUDE A DUCT OVER THE RETROROCKET MOZZLE EXTENDING MG TO POSITIVELY MAINTAIN THE DESIRED THRUST VECTOR.	HELLOE A DUCT OVER THE	RETRONOCKET HORZ	E EXTENDING BEYOND	

GENERAL DYNAMICS CONVAIR DIVISION

13 JUN 1866

-		DITTICULTIES REVIEW-AIRTRANE SYSTEM-AIRBORNE	INFRAME SYSTEM-AIRBORN	ũ					
<u> </u>	ATRICA BUS	TEST/REFORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRIO	VENDOR HANE	Ä.	<del> </del>
	AIRFRAME-A/B BUSTAINER-PAYLOAD SEPAR	AZC-27-064/A2-402-00-12 Retremocket	FLIGHT	120 580909	A2 308.9	<b>3</b> 8			36.00
	FAILURE HODE-OUT OF TOLI	TOLERANCE. RETROROCKET THRUST VECTOR DEFLECTED DUE TO EXPANSION OF	DEFLECTED DUE TO EXPA		HE EXHAU	3 5	THE EXHAUST GASES AGAINST TH	÷	
	SYSTEM EFFECT-NOME.								
	VEHICLE LFFECT-LOSS OF VEHICLE STABILITY. APPROXIMATELY 1.5 DEGREES PER SECOND, AND E.	VEHICLE STABILITY. THE DEFLECTED THRUST VECTOR ES PER SECOND, AND SUBSEQUENT COLLISION OF THE		IN A MIBS	ILE NOSE ER WITH	A H	RESULTED IN A MISSILE NOSE DOWN PITCH RATE OF TAM: SECTION ADAPTER WITH THE RE-ENTRY VEHICL	P 2	
	COMRECTIVE ACTION-RETROI THE POD NOSE FAIRING TO	CORRECTIVE ACTION-RETROROCKET INSTALLATION MODIFIED TO INCLUDE A DUCT OVER THE RETROROCKET MOZZLE EXTENDING BEYOND THE POD MOSE FAIRING TO POSITIVELY MAINTAIN THE DESIGN THRUST VECTOR.	VCLUDE A DUCT OVER THE LUST VECTOR.	RETROROCK	ET NOZZL	E EXT	ENDING BEY	g 5	
	AIRFRAME-A/B BUSTAINER-PAYLOAD SEPAR	AZC-27-053/P1-404-00-11 Retrorocket	FLIGHT	110 5907£8	11 315.0	. O			898171
	FAILURE MODE-FAIL TO OP! FIRED.	IL TO OPERATE AT PRESCRIBED TIME, ACCELERATION DATA INDICATED THAT ONLY ONE OF THE TWO RETROROCKETS	ATION DATA INDICATED 1	HAT ONLY C	AE OF TE	ž Š	RETROROCK	673	
	SYSTEM EFFECT-OPERATION	SYSTEM EFFECT-OPERATION TOO LOM. INSTEAD OF NOMINAL THPULBE OF 780 LB-SEC, ONLY 400 LB SEC IMPULSE WAS INDICATED.	LIE OF 780 LB-SEC, OM	* 400 LB 1	EC IMPUL	*	S INDICATE	á	
	VEHICLE EFFECT-NUME, MAN	VENICLE EFFECT-MANE, MAY HAVE CONTRIBUTED TO BURPING OF RE-ENTRY VENICLE AFTER SEPARATION, RE-ENTRY VENICLE IMPACT NA SATISFACTORY,	RE-ENTRY VEHICLE AFTER	BEPARATIO	N. RE-EH	7 7	EHICLE 1HP	ACT.	. `
	CORRECTIVE ACTION-UNKNOWN.	· ·							
	AIBFRANE-A/B PAYLOAD FAIRING-OAO	SLV-98-02-042 RETROFORCE TUBE	FAR 69-20304-1	660222	CKIE		3/03		••0504
	FAILURE MODE-STRUCTURAL	FAILURE MOE-STRUCTURAL, CRACK IN B-NUT BLEEVE IN THE OAG PETROFORCE TUBE, COMPONENT FOUND IN THE OAG FAIRING,	) HETROFORCE TUBE, CO	PONEINT FOL	S S S S S S S S S S S S S S S S S S S	8	FAIRING.		· <del></del>
	CORRECTIVE ACTION-FAILU	CORRECTIVE ACTION-FAILURE CONFIRMED. STAIMLESS STEEL 303- 69-62049 WAS CREATED TO CONTROL PARRICATION OF RIDGID TIBL	303 MATERIAL WILL NOT DE USED FOR BLEEVES. GD/C SPECIFICATION TI SING AND TORGUING OF B-NUTS.	USED FOR S		٧ چ	SPECIFICAT	5	·····
< L	AIRFRAME-A/B PAYLOAD FAIRIMG-OAO	69C4838.1 Pynofechnic Control Unit CAO	UT#-FTD 69-81180-9	680216	•	YES	7ES CO/C 69-61123-5		
	FAILURE MODE-FOUR UNITS.	UR UNITS OPEHED FOR INTERNAL INSPECTION FOLLOWINS PLIGHT VIBRATION TEST. LOOSE NUT FOUND ON PIN L	alcuing flight vibrat	10H TEBT.	LOOSE NU	5	HI OH PIN	2	
	STOTEN EFFECT-NOWE								

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DIFFICULTIES REVIEW-AIRFRAME SYSTEM-AIRBORNE

	990240	•••			991104			9911.03	
VEHICLE SITE PRI VENDOR NAME DATE DIF TIME DIF OTH VENDOR PART HO	1	YES HI SHEAR NO PC11	KING PINS. SECONDARY	E OF CONTAINING ANY C	YES RATHOND W. JEH 001104 NO SEN 200200	UMEATCHED AS IT MAS D	TICAL AND TECHNICAL E REFORE REVISION TO TH	YES RAYHOND W. JEN NO SEN EDDEOD	IN ERRATIC MANNER BY EXCEDING SPECIFICAT STORY LOG NO. 663-1-0
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	<b>KECTED TO</b>	J/93	NIDEE LOCI	II CAPABLI	5/09	FLAPPER ( EEN ERRATI	BY ANALYI 1610. THES	3/09	CHE TINE
	WINGS COR	69069	OMER CARTI	EXIBLE BO	630120	REITS DUMP ISM HAD DE	ETERHINED ARE TOO R.	630113	APPER OPE GE 1443 AT MINNER REP.
DIF DATA SOURCE PART NUMBER	TOGSS ASSEMBLY DRA	UTP-QUAL/PFT 27-02987-9	BHEARED OFF THE P	AND QUALIFY A FL	UTP-QUAL/PPT 69-08101-1	JAIDITY TEST THE U IE LATCHING MECHAN	OR. IT HAS BEEN D O DUMP CPEN TIME. CESSART.	UIF-QUAL/PPT 69-06101-1	THE UNITS DUMP FL. Kr. ALSO THE LEAKA TED IN THE BANE M
TEST/REPORT NUMBER FAILED COMPONENT NAME	VCHICLE EFFECT-NOME CORRECTIVE ACTION-NUTS TORAUED IN ACCONDNANCE WITH SPEC D-70056 ASSEMBLY DRAWINGS CORRECTED TO CALL OUT TORAUE REAU RENENTS.	69A 3964 ERPLOSIVE NUT POWER CARTRIDGE	TAMINATION. THE RECOIL OF THE NUT ABSENDLY BHEARED OFF THE FOMER CARTRIDGE LOCKING PINS. SECONDARY RECT OPERATION OF THE EXPLOSIVE NUT.	HECP 3210, DATED 18 NOV 1863, WILL DEVELOP AND QUALIFY A FLEXIBLE BOIT CAPABLE OF CONTAINING ANY C.	69A2D09.2 ONE-WAY VENT VALVE	RATIC OPERATION. DURING THE TEMPERATURE—HUMIDITY TEST THE UNITS DUMP FLAPPER UNLATCHED AS IT MAS D 8 Meen reguired to unlatch it would not. The Latching Mechanism had deen erratic throughout the tes By Log no. 863-1-000.	I-TERMINATE TESTING. SEND UNIT BACK TO VENDOR. IT HAS BEEN DETERMINED BY ANALYTICAL AND TECHNICAL E. SPECIFICATION REQUIRENENIS FOR LEARAGE AND DUMP OFEN TIME ARE TOO RIGID. THEREFORE HEVISION TO TH QUIRENENTS FOR HORE REALISTIC VALUES IS NECESSARY.	69/2009-2 OME-MAY VENT VALVE	FAILURE MOSE-ERRATIC OPERATION. DURING PROOP CYCLE A AND B THE IMITS DUMP FLAPPER OPERATED IN AN ERRATIC MANNER BY RELEASING AND RELOCKING IN A MON-REPEATABLE MINNER, TINE MISE, ALSO THE LEAKAGE WAS AT CHE INE EXCEDING SPECIFICATION AND THE NEXT THE MAN REP. TASK HISTORY LOG NO. 663-1-006.
\$131EH \$U6-313TEH	VCHICLE EFFECT-NOME CORRECTIVE ACTION-MUTS T	AIRFRAME-A/B PATLOND FAIRING-ONO	FAILURE MODE-CONTANINATI FAILURE AFTER CORRECT OPE	CORRECTIVE ACTION-ECP 32 CONNECTOR LOCK PINS.	AIRFRANE-A/B PAYLOAD FAIRING-OAO	FAILURE MODE - ERRATIC CPERATION, DURI EING HEATED. LATER WEEN REQUIPED TO UN. T. REF. TASK HISTORY LOG NO. 665-1-000.	CORRECTIVE ACTION-TERMINATE TEST VALUATION THAT THE SPECIFICATION EQUIREMENTS FOR	AIRFRAME-A/B PAYLOND FAIRING-ONO	FAILURE HODE-ERRATIC OPE RELEASING AND RELOCKING I TON AND THE NEXT TIME MAS DS.

CORRECTIVE ACTION-NO FURTHER TESTS TO BE CONDUCTED ON THE ABOVE UNITS.

GENERAL DYNAHICA CONVAIR DIVISION DIFFICULTIES REVIEW-AIRFRAME SYSTEM-AIRBORNE

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STATEM SUD-STATEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI VENDOR NAME OTH VENDOR PART NO	ž -	
AIRFRAME-A/B PAYLOAD FAIRING-OAO	69A2UG9 CHE-HAY VENT VALVE	UTP-QUAL/PPT 69-08101-1	650111	3/95	YES RAYMOND W. JEN MO SEN £00200	NOT .	*****
FAILURE WOE-OUT OF TOL THE REQUIRED TIME OF 8 T	TOLERAME: DURING PROOF CYCLE B OF THE B TO 12 SEC. REF. TASK HISTORY LOG NO.	THE INITIAL ACCEPTANCE TEST THE UNITS DUMP FLAPPER EXCEEDED NO. 665-1-005.	TEST THE U	MITA DUM	FLAPPER EXCE	9	
CORRECTIVE ACTION-CONTI	ON-CONTINUE TEST.						
AIRFRAME-A/B PAYLOAD FAIRING-OAO	68A2DD9 ONE-MAY VENT VALVE	UTP-QUAL/PPT 69-08101-1	630109	3/09	YES RAYMOND W. JEN NO SEN 200200	ž.	101141
FAILURE MODE-ERRATIC OP AULTY, SOMETIMES LATCHIN	FAILURE MODE-ERRATIC OPERATION. DURING INITIAL ACCEPTANCE TEST THE UNITS DUMP FLAPPER LATCHING MECHANISM OPERATED F Lutty, sometimes latching and other times not latching, ref. Task Histor Log no. 865-1-804.	TEST THE UNITS DUMP. . TASK HISTOR LOG NO	FLAPPER LA 3. 665-1-00	1CH1N6 N	cchanism opera	8	
CORRECTIVE ACTION-CONTI	ON-CONTINE TEST,						
AIRFRANE-A/D PAYLOAD FAIRING-CAO	69A.2009 ONE-WAY VENT VALVE	UTP-GUAL/PPT 69-08101-1	450106	5D/C	YES RATHOND W. JEN NO SEN RODZOG	ž,	**01**
FAILURE MODE-LEAK-EXTER ERENTIAL PRESSURE OF 0.3	FAILURE MODE-LEAR-EXTERNAL. DURING FROOF CYCLE & OF THE INITIAL ACCEPTANCE TEST THE UNIT LEAKED STOSCIM WITH A DIFF Rential pressure of D.3PSID. Maximum allomable is 130 scim. Ref. Task History Log no. 465-1-502.	ITIAL ACCEPTANCE TES REF. TASK HISTORY	17 THE UMIT	LEAKED 3	1705CIM WITH A	10	
CORRECTIVE ACTION-CONTI	ON-CONTINUE TEST.						
AIRFRAME-A/B PAYLOAD FAIRING-OAO	69 A 2 D D G WENT VALVE	UTP-QUAL/PPT 69-06101-1	641230	y/ <b>9</b>	YES RAYMOND W. JEN NO SEN ROOZOG	É	***************************************
FAILURE HODE-OUT OF TOL. CHES. REQUIRED IS 0.34 I	FAILURE MODE-OUT OF TOLERANCE. DURING EXAMINATION OF FRODUCT THE UNITS MOUNTING MOLES TO EDGE OF FLANGE WAS D.RS IN HES. REQUIRED IS D.SA INCHES. REF. TASK MISTORY LOG NO. 865-1-001.	CT THE UNITS MOUNTIN 5-1-001.	M HOLES TO	ED6E OF	PLANSE MAS D.1	ž	
CORRECTIVE ACTION-DCR E	CORRECTIVE ACTION-DCR 27495 WILL BE INITIATED TO REVISE NOTE 1.2 OF SPECIFICATION CONTROL DRANING 69-DB1D1.	IE 1.2 OF SPECIFICAT	ION CONTRO	L DRAWING	. 48-09101.		
AIRFRAME-A/B PAYLOAD FAIRING-OAO	69AZOD9 OME-MAY VENT VALVE	UTP-GUAL/PPT 68-08101-1	<b>641024</b>	3/ <b>9</b>	YER RATHOND W. JEN NO BEN EDGEGG	ž	

PAILURE MODE-OUT OF TOLZRANCE, DURING INITIAL DURP PLAPPER TEST THE PLAPPER OPERATION TIME EXCEEDED THE ALLOMABLE 1 O TO 12 SECONDS AT THE O.S POID PRESSURE, FIVE UNITS HERE TESTED, REJECTED, AND RETURNED TO THE VENDOR FOR RE-ADJUST

GENERAL DYNAMICS

\$7.87EM \$UB-57.81EM	TEST/AEPORT NUMBER DIF DATA BOURCE FAILED COMPONENT NAME PART NUMBER	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	811E 0 11HE 01F	PRE VENDOR HANE OTH VENDOR PART NO	
NENT AND POSSIBLE RE-DES	RE-DESIGN OF THE LATCH MECHANISH, REF. FPR NR F-308081.	NR F-809081.				
CORRECTIVE ACTION-VENDOR MADE THE FOLLOWING AN EPOXY CENENT WAS ADDED TO THE ADJUSTHENT	MADE THE FOLLOWING DESIGN TO THE ADJUSTMENT SCREWS	CHANGES TO THE VALVE'(A) LATCH MECHANISH WA! TO PREVENT BLIPPAGE, REF. FRR FR 654-2-417.	TCH MECHANIS. RR FR 454-2-	H 148 CH	ROME MARDENED (B)	
AIFFRAME-A/B PAYLOAD FAIRING-OAO	69AE009 CNE-MAY VENT VALVE	UTF-QUAL/PPT 69-08101-1	6410E1 60/C		YES RAYMOND W. JEN NO SEN 200200	••01••
FAILURE MODE-OUT OF TOLD IN 17.8 SECOMDS. REQUI	OF TOLERANCE, DURING INITIAL ACCEPTANCE TEST DUMP PLAPPER TEST THE UNITS PLAFPER OPENED AND LATCHE REQUIRED OPERATION IS & TO 12 SEC. DURING PROOF CYCLE A LEAKAGE AT-D.3PSID MAS 330 SCIM. MAXIMUM CIM.	187 DUMP PLAPPER TES PROOF CYCLE A LEAK	T THE UNITS AGE AT-0.3PB	FLAFFER ID MAS 3:	DPENED AND LATCHE 30 SCIM. MAXIMUM	
CORRECTIVE ACTION-RETUR	CORRECTIVE ACTION-RETURN UNIT TO VENDOR FOR REMORK.					
AIRFRAHE-A/B PAYLOND FAIRING-ONO	69 APOO9	UTF-QUAL/PPT 69-D6101-1	641016 <b>6</b> 0/C		YES RATHOND W. JEN HO SEN EDOZOO	60110
FAILURE MODE-OUT OF TOL	OF TOLERANCE. DURING THE INITIAL ACCEPIANCE DUMP TEST THE UNITS DUMP FLAPPER OPERATION EXCEEDED TH SECONDS ALLOWBLE. SIX UNITS WERE TESTED.	E DUMP TEST THE UNI	TS DUS FLAP	PER OPER	ATION EXCEEDED TH	
CORRECTIVE ACTION-REJEC	CORRECTIVE ACTION-REJECT UNITS AND RETURN TO THE VENDOR FOR RE-ADJUSTHENT	RE-ADJUSTHENT.				
AIRFRAME-A/B PAYLOAD FAIRING-OAO	69A2009 OME-MAY VENT VALVE	UTP-QUAL/PPT	641014 60	7 2/05 1	YES RAYMOND W. JEN NO SEN EGGEGG	760108
FAILURE MODE-OUT OF TOLOUT OF TOLOUT	OF TOLERANCE. DURING THE REPEAT 1.4.T DUMP TEST FOR THE WENDONS REPRESENTATIVE THE FOUR UNITS DUMP. CONDITIONS WERE COMPTRIED.	TEST FOR THE VENDO	AB REPRESENT	ATIVE TH	E FOUR UNITS DUMP	
CORRECTIVE ACTION-RETUR	CORRECTIVE ACTION-RETURN ALL UNITS TO THE VENDOR FOR RENORK.	•				
AIRFRAHC-A/B PAYLOAD FAIRING-OAO	69A2DO9 OME-MAY VENT VALVE	UTP-QUAL/PPT 69-D81D1-1	641 DOE 60	2 2/09	YES RAYMOND M. JEN NO SEN 200200	·
FAILURE MODE-LEAK-ENTER EARAGC MAS 300 RCIM, ALL	FAI:URE HODE-LEAK-EXTERNAL, DURING THE INITIAL ACCEPTANCE TEBT AT A MEGATIVE DIPPERENTIAL PRESSURE OF D.SPRID THE L Arace mas 300 rcim. Alcomble is 150 bcim. Maximum. Ref. S/M 404-D003.	EST AT A NEGATIVE D' 'N 404-0003.	I PFERENTIAL	PAESSURE	OF 0.3P810 THE L	
		·			PASE 0080	

GENERAL DYMAHICS CONVAIR DIVISION

DIFFICULTIES REVIEW-AIRFRAME SYSTEM-AIRBORNE

	20109	***		8 H							
VENDOR NAME		60-FORTWORTH 95-71038-1	FELL FROM 118 MOUNT. C		E ARM AT YORM D DUE TO SUDD	THE CUSTOMER AUTHORIZED DEVELOPMENT BALES CADER 364-1-61 DATED 641203. M	YES HI-SHEAR NO PC-11	SEAL DURING P	EPOKY TO BOLD	BAYMOND M. JEN BEN INC.	NEGATIVE DIFFERENTIAL PRESSURE OF 0.8 PSID THE MERE 168160.
M TO	SCIM. THE	POINT LO YES G	FELL FROM	POINT LO YES 6.	THE OF THE	NUTHORIZED		PRESSURE	HGE FROM	20	TO MENTE
VEHICLE PITE DATE DIF TIME DIF	E MAS 100		BASE AND CUSTONER	IZS POINT	HDDEN LOAD	CUSTONER /	30 FACTORY	IIC MEADER	DEA'1. CHJ	2/09	ENTIAL PRI
	THE LEAKAG	64082	D FROM 178 BLEM. THE	840825	CES FROM S	JOLEM, THE RENCE BALE	<b>64</b> 0730	THE CERAN	ERAHIC HEA	***************************************	TESTED.
DIF DATA SOURCE PART NUMBER	THE UNIT RETEBTED. THE LEAKAGE WAS 100 SCIM. THE TEST HAS CON	FAR 55-71036-1	SH PAD BEPARATE STUDIED THE PRO	FAR 55-71030-11	MERE GOUGED AND	STUDIED THE PRO NG DESIGN, REFE	FAR B RY-DERSE-B	ROUGH CRACKS IN	ONCERNING THE C	UTP-QUAL/PPT 60-00101-1	TEST AT A NEGAT
TEST/REPORT NUMBER FAILED COMPONENT NAME	VALVE WAS OPENED AND RELATCHED. THE L	SLV-PL-DB-3207F THRUSTER CRUSH PAD-OAO NOSE	. DAMAGE OCCURRED. THRUSTER ARM CRUSH PAD BEPARATED FROM 178 BASE AND FELL FROM 178 MOUNT. C. ACTION OF HALF OF BROKEN ARM. AR SLV-PL-D8-3796 THE DESIGN GROUP STUDIED THE PROBLEM. THE CUSTOMER AUTHORIZED EXISTING DES	1ch with a spring citimize fire. Reference sales under 304-1-91 daieus ealeus, no millon millon de faiture.  AD FAILURE.  IRFRANC-A/B  SLV-PL-D8-3206F  ATLOAD FAIRING-CAO THRUSTER ARM ASSEMBLY-CAO NOSE 55-71030-11 MA	RUCTURAL. DAHAGE OCCURRED. THRUSTER ARM BROKE INTO TWO PIECES FROM SUDDEN LOADING OF THE ARM THE ARM EXPLOSIVE LATCH PIN AND THE PISTON WERE GOUGED AND SAFETY PIN MOLE WAS FLATTENED DUE I AND PISTON UPON SUDDEN ARM DECELLERATION.	OH-PER RAR BLV-PL-08-3798 THE DESIGN GROUP STUDIED THE PRODLEM. THE CUSTOMER AUTHORIZED DEVELOPHENT Hoer type jettisch system to Replace existing design, reterence bales order 364-1-61 dated 41.203. Taken on Failures of the Original Design.	SLV-99-02-031F MOSE COME FAIRING SEPARATION MUT & RY-DERSE-9 QUIB.	FAILURE HODE-INTERNAL LEAR. EXPLOSIVE GASES LEAKED BACK THROWGH CRACKS IN THE CERAMIC MEADER PRESSURE SEAL DURING It test firing.	ON-VENDOR INCORPORATED TWO DESIGN CHANGES CONCERNING THE CERANIC HEADER'S. CHANGE FRUN EFONT TO SOLD CHANGE IN SHAPE OF RETAINING RING.	69AEDOB OME-MAY VENT VALVE	PAILURE HODE-LEAR-EXTERNAL. DURING THE INITIAL ACCEPTANCE TEST AT A NEGATIVE DIFI Test units learige rate exceeded the 2850 CC/NIM. ALLOMED FOUR UNITS HERE TESTED.
SYSTEM SUD-SYSTEM	CORRECTIVE ACTION-THE V	AIRFRANC-A/B	FAILURE HODE-STRUCTURAL, DAMAGE OCCURRED. AUSED BY PROJECTILE LIRE ACTION OF HALF OF CORRECTIVE ACTION-PER RAR SLV-PL-08-3796 T	AD FAILURE. AIRFRAME-A/B PATLOAD FAIRING-OAO	FAILUEE MODE-STRUCTURAL AL JETTISCHING, THE AHM I EN IMPACT OF ARM AND PIS	CORRECTIVE ACTION-PLR RAF OF A SPRING CYLINDER TYPE O ACTION MILL DE TAKEN ON	AIRFRAME-A/B PAYLOND FAIRING-OAO	FAILURE HODE-INTERNAL LI PT TEST FIRING.	ACTI	AIRFRANC-A/B PAYLOAD FAIRING-OAO	FAILURE HODE-LEAK-EXTER

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GENERAL DYSHICS

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DIFFICULTIES REVIEW-AIRFRAME SYSTEM-AIRBORNE

,	991092	•••			981780			*01444				
VENDOR NAME	CO BE UPON SATISFACTORY PERFORMAN	HI-SHEAR PC-11	E VIOLENTLY, BM		YES HI-SHEAR NO SMESIO	FTER IMPACT INT	ENE USED TO TES	JENSON 200200		MCCORNICK BELP H DS600	DAT APART, DUE TO EXCESSIVE VENDOR HEA HEAT TREATED LITHIN THE BRITLE RANGE	-POUNDS, AND ADDED A SPHERICAL WASHER TO B FROM 60/C A LIBY OF APPROVED HEAT TREAT SO ULTRASOMIC INSPECTION, HEAT TREATH, I AND
SITE PRI TIME DIF OTH	8AT18FAC	22	O RELEAM			0 BIND A	# 1991 FB	PT. LOM YES		7E3	TO EXCESS THIN THE	A SPHERIC APPROVEC OM, HEAT
<u></u>	5	FACTORY	<b>1</b>		5/03	NOTE:	2	Ė		ŝ	. 2VE TEO 14	NOOED 13Y OF BHECTE
VEHICLE DATE DIF	ANCE TO B	640603	EPARATION	PARTS.	640309	T SECHENT	H63. THE	#3080#		<b>42</b> 041 <b>2</b>	DAT APART HEAT TREA	HDA: AND . BOYC A L ABOMIC 18:
DIF DATA SOURCE	OR REWORK, RE-ACCEPT	FAR 10 27-02652-8	ST FIXTURE ALLONED SI. ELECTRICAL PLUG.	REPLACED WITH PROPER	UTP-QUAL/PPT 27-02352-7	RTRIDGE FIRED BUT NO. EPARATE.	FOR THE PLICHT BUSHING.	FAR 69-06101-1	AMLYSIS MAS MADC.	FAR	ENE FOUND BROKEN, 1 UE. BOTH BOLTS WERE 8 400 INCH-FOUNDS.	1400 TO ESD INCH-POUI ENDOM RESUSSED PROM ENTIFICATION OF ULTR
TEST/REPORT NUMBER FAILED COMPOMENT NAME	-THE UNITS WERE RETURNED TO THE VENDOR FOR REWORK, RE-ACCEPTANCE	SLV-99-DE-D46F NOSE COME FAIRING SQUIB, BEPARATIO 27-D2852-9 N NUT	FAILURE MODE-STRUCTURAL - FAULTY METAL BUSHINGS IN THE TEST FIXTURE ALLONED SEPARATION MUT TO RELEASE VIOLENTLY, SM Earing the retaining pins in the Squib and Forcing off the Electrical Plug.	CORRECTIVE ACTION-INCORRECT 1EST FIXTURE COMPONENTS MERE REPLACED MITH PROPER PARTS.	69F-2611-1A Explosive mut	FAILURE MOE-FAIL TO OPERATE AT PRESCRIDED TIME, POMER CARTRIDGE FIRED BUT NUT BEGMENTS WOULD BIND AFTER INPACT INT O SISULATED FITTING BUSHINGS AND WOULD NOT ALLUM BOLT TO BEPARATE.	CORRECTIVE ACTION-THE COMPRESSIVE STREYGTH MAS INCREASED FOR THE PLIGHT BUSHINGS. THE NEW BUSHINGS WENE USED TO TES SEVEN HAT ASSEMBLIES. THE BOLTS WERE 4JECTED WITH HO DANAGE TO THE BUSHING.	SP-99-02-04£C VENT VALVE	FAILURE MODE-PREMATURE OPERATION-VALVE OPENED TO SOON. NO AMALYSIS MAS MADE. Corrective action-mone-valve has not received for analysis.	CT-68-02-602F EXPLOSIVE BOLT, NOSE FAIRING	FAILURE MODE-STRUCTURAL. 140 4340 STEEL EXPLOSIVE BOLTS WENE FOUND BROKEN, 1 DAY APART, DUE TO EXCESSIVE VENDOR HEA T Treat Maich allomed breakace Following Installation Torgue, Both Bolts Were Heat Treated Vithin the Britle Range Of 220,000 To 260,000 PSI, Reguired Installation Torgue was 400 inch-Pounds.	COMRECTIVE ACTION-S. 60/C REGUCED TORQUE REQUIREMENT FROM 400 TO ESO INCH-POUNDS. AND ADDED A SPHERICAL MASHER TO B OLT INSTALLATION TO TAKE OUT ANY POSSIBLE SIDE LOADS. R. VENDOR RESUESTED FROM 60/C A LIST OF APPROVED HEAT TREAT SO UNCES FROM MAICH OME WILL BE USED. S. VENDOR WILL BUBHIT CERTIFICATION OF ULTRASOMIC INSPECTION, HEAT TREATH, T AND
3131EH 846-3731EM	CORRECTIVE ACTION-THE UNIT	¥ _	FAILURE MODE-STRUCTURAL -	CORRECTIVE ACTION-INCORRE	AIRFRAME-478 PAYLOAD FAIRING-OAO	FAILURE MODE-FAIL TO OPER O SISULATED FITTING BUSHIN	CORRECTIVE ACTION-THE CON T SEVEN MUT ASSENBLIES. TH	AIRFRANE-A/B PAYLOAD FAIRING-OAO	FAILURE MODE-PREMATURE OF CORRECTIVE ACTION-MOME-VA	AIRFRAME-A/B PAYLOAD FAIRING-OAO	FAILURE MODE-SIRUCTURAL. I TREAT MAICH ALLOMED BREA OF RED,000 TO RED,000 P81.	COMBECTIVE ACTION-1, 60/C OLT INSTALLATION TO TAKE O UNCES FROM MAICH ONE WILL I

GENERAL DYNAHICS CONVAIR DIVISION

15 JUN 1866

ZWL 4 A - GOT	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE SITE PRI VENDOR MAME DATE DIF TIME DIF OTH VENDOR PART NO	DIF OTH	VENDOR PART NO	
ARTICLE I	HAPECTION AS WELL AS RECORDS OF 100 PER CENT ROCKWELL HARDNESS TESTS TO 60/C. 4. VEWOOR WILL SUBM INDEPENDENT LABORATORY ONE BOLT FROM EACH PRODUCTION LOT FOR PULL TESTING. RESULTS WILL BE FORWORD	CENT ROCKWELL HARDH	ESS TESTS TO GO PULL TESTING.	/C. 4. V	EMOOR WILL SUBM WILL BE FORWORD	:
AIRFRANE-A/B PAYLCAD FIIRING-CAO	69AEGOD OME-LAY VENT VALVE	UTP-BUAL/PPT 87-08101-1	19830108 60/C	46	RAYMOND M. JEN SEN 200200	981100
FAILURE MODE-ERRATIC O OPEN FOR 3 ATTEMPTS AN IED BETWEEN 13.6 TO EL:	FAILURE MOE-ERRATIC OPERATION, DURING PROOF CYCLE B OF THE INITIAL ACCEPTANCE TEST, THE UNITS DUMP FLAPPER DID MOT OPEN FOR 3 ATTEMPTS AND DURING THE NEXT 4 ATTEMPTS ITS TIME EXCEEDED THE ALLOMABLE OF B TO 12 SEC. ACTUAL TIMES WAR IED BETWEEN 13.8 TO RI.E SEC. ALBO THE DUMP PLAPPER NENT PAST BOTH LATCHES, REF. TASK HIATORY LOS HO. 665-1-DOS.	IE INITIAL ACCEPTANCI ME EXCEEDED THE ALLO IST BOTH LATCHES. REI	E TEST, THE UNI ABLE OF 8 TO 1: 7. TASK HISTORY	Tå DUMP E SEC. A LOS NO.	FLAPPER DID NOT CTUAL TIMES WAR 669-1-003.	
CORRECTIVE ACTION-CONTINUE TEST.	IME 1687.					
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GENERAL DYNAMICS CONVAIR DIVISION

15 JUN 1966

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<b>_</b>	ATATEN BLØ-AYATEN	TEST/REPORT HUMBER FAILED COMPOMENT HAME	DIF DATA BOUNCE PART NUMBER	VEHICLE DATE DIF	11 E 01F	2 H	VEHICLE SITE PRI VENDOR MANE DATE DIF TINE DIF OTH VENDOR PART NO	
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